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REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Aug 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Aug 2010
HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the fourth quarter of 2010.
CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

L3          3677 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ADHESINS+OLD,PFT/CT
L4          4606 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "TOXOPLASMA GONDII"+PFT/CT
L5            31 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND L4
L6         24987 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MUTAGENESIS+PFT/CT
L7        211382 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MUTATION+OLD,PFT/CT
L8             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND (L6 OR L7)



L1          1096 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MIC1 OR MICI OR MIC3 OR
                 MIC(W)(1 OR I OR 3)
L9            49 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 AND ADHESI###
L10           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND (DELET? OR ALTER?
                 OR MUTANT OR MUTAGEN? OR MUTAT? OR POLYMORPH? OR POLY
                 MORPH?)



L1          1096 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MIC1 OR MICI OR MIC3 OR
                 MIC(W)(1 OR I OR 3)
L2            66 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 AND (TOXOPLASMA OR
                 (TOXOPLASM? OR T)(W)GONDII)
L11            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 AND (DELET? OR ALTER?
                 OR MUTANT OR MUTAGEN? OR MUTAT? OR POLYMORPH? OR POLY
                 MORPH?)



L12           16 S L8 OR L10 OR L11
L13           10 S L12 AND (PY<2005 OR AY<2005 OR PRY<2005)
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Ans. set limited to patent/non-patent citations dated prior to 2005

L13 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 11 Aug 2005
ACCESSION NUMBER: 2005:729611 HCAPLUS Full-text
DOCUMENT NUMBER: 143:206465
TITLE: Therapeutic and carrier molecules
INVENTOR(S): Ferrante, Antonio; Rathjen, Deborah Ann
PATENT ASSIGNEE(S): Peplin Biolipids Pty Ltd, Australia
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005073164	A1	20050811	WO 2005-AU98 <--	20050128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005209331	A1	20050811	AU 2005-209331 <--	20050128
CA 2554735	A1	20050811	CA 2005-2554735 <--	20050128
EP 1718602	A1	20061108	EP 2005-700130 <--	20050128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1934072	A	20070321	CN 2005-80008891 <--	20050128
BR 2005007236	A	20070626	BR 2005-7236 <--	20050128
JP 2007522118	T	20070809	JP 2006-549788 <--	20050128
US 20090215895	A1	20090827	US 2009-588094 <--	20090507
PRIORITY APPLN. INFO.:			US 2004-540604P P <--	20040130
			WO 2005-AU98 W	20050128

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:206465
AB The present invention relates generally to compds. comprising a hydrocarbon chain portion and more particular to compds. comprising chemical derivatizations of the hydrocarbon chain which are useful therapeutic and prophylactic mols. The present invention further provides compds. where the hydrocarbon chain portion is a carrier mol. for functional groups, moieties or agents. The present invention can include naturally including polyunsatd. fatty acids as well as synthetic, modified or derivatized polyunsatd. fatty acids. Furthermore. these polyunsatd. fatty acids

can be conjugated to amino acids, peptides or proteins. The compds. of the present invention are particularly useful in the treatment and prophylaxis of a range of conditions including cancers, protein kinase c(PKC)- or NFκB-related- or -associated conditions, cardiovascular conditions, pain, inflammatory conditions, vascular or immunol. conditions such as diabetes, neurol. conditions and infection by a range of viruses or prokaryotic or eukaryotic organisms. The present invention further provides pharmaceutical compns. and methods of medical treatment. OS.CITING REF

COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 15 Jul 2005
ACCESSION NUMBER: 2005:610763 HCAPLUS Full-text
DOCUMENT NUMBER: 143:114041
TITLE: Vaccine stocks of the Apicomplexan family Sarcocystidae
INVENTOR(S): Dubremetz, Jean Francois; Bout, Daniel; Lebrun, Maryse
PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique INRA, Fr.; Centre National de la Recherche Scientifique CNRS; Universite Francois Rabelais
SOURCE: Fr. Demande, 33 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2864966	A1	20050715	FR 2004-260 <--	20040113
FR 2864966	B1	20060505		
AU 2005207647	A1	20050811	AU 2005-207647 <--	20050113
CA 2552392	A1	20050811	CA 2005-2552392 <--	20050113
WO 2005072754	A1	20050811	WO 2005-FR74 <--	20050113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1703914	A1	20060927	EP 2005-717409 <--	20050113
EP 1703914	B1	20080416		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
BR 2005006838	A	20070612	BR 2005-6838	20050113

			<--	
JP 2007524409	T	20070830	JP 2006-548351	20050113
			<--	
AT 392209	T	20080515	AT 2005-717409	20050113
			<--	
PT 1703914	E	20080724	PT 2005-717409	20050113
			<--	
ES 2306114	T3	20081101	ES 2005-717409	20050113
			<--	
NZ 548250	A	20100930	NZ 2005-548250	20050113
			<--	
ZA 2006005535	A	20080326	ZA 2006-5535	20060705
			<--	
IN 2006DN04585	A	20070824	IN 2006-DN4585	20060808
			<--	
US 20090053266	A1	20090226	US 2008-585721	20080808
			<--	
PRIORITY APPLN. INFO.:			FR 2004-260 A	20040113
			<--	
			WO 2005-FR74 W	20050113

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention relates to attenuated mutant stocks of Apicomplexans of the family Sarcocystidae, in which adhesins MIC1 and MIC3 were inactivated, and with their vaccine use.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 15 Oct 2004
ACCESSION NUMBER: 2004:847638 HCAPLUS Full-text
DOCUMENT NUMBER: 141:325696
TITLE: Genes showing altered levels of expression in response to inhibitors of cyclin-dependent kinases and their use in screening for novel inhibitors
INVENTOR(S): Green, Simon R.; Frame, Sheelagh; Blake, David
PATENT ASSIGNEE(S): Cyclacel Limited, UK
SOURCE: PCT Int. Appl., 175 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087954	A2	20041014	WO 2004-GB1334	20040326
			<--	
WO 2004087954	A3	20050127		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2519307	A1	20041014	CA 2004-2519307 <--	20040326
EP 1611253	A2	20060104	EP 2004-723651 <--	20040326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006521805	T	20060928	JP 2006-506036 <--	20040326
US 20060204975	A1	20060914	US 2005-242244 <--	20051003
PRIORITY APPLN. INFO.:			GB 2003-7643 <--	A 20030402
			WO 2004-GB1334 <--	W 20040326

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Genes that show changes in levels of expression in response to pharmaceutical inhibitors of cyclin-dependent kinases, especially 2,6,9-tri-substituted purines including roscovitine, are identified for use in the screening for roscovitine-like drugs using either animals or cultured cells. The identity of these markers facilitates the convenient identification of roscovitine-like activity both in vitro and in vivo.

OS.CITING REF COUNT:	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT:	1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN

ED Entered STN: 03 Mar 2004

ACCESSION NUMBER:	2004:173311 HCAPLUS Full-text
DOCUMENT NUMBER:	141:239704
TITLE:	A role for coccidian cGMP-dependent protein kinase in motility and invasion
AUTHOR(S):	Wiersma, Helen I.; Galuska, Stefan E.; Tomley, Fiona M.; Sibley, L. David; Liberator, Paul A.; Donald, Robert G. K.
CORPORATE SOURCE:	Merck Research Laboratories, Department of Human and Animal Infectious Disease Research, Merck and Co. Inc., Rahway, NJ, 07065, USA
SOURCE:	International Journal for Parasitology (2004), 34(3), 369-380 CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER:	Elsevier Science Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB The coccidian parasite cGMP-dependent protein kinase is the primary target of a novel coccidiostat, the trisubstituted pyrrole 4-[2-(4-fluorophenyl)-5-(1-methylpiperidine-4-yl)-1H-pyrrol-3-yl] pyridine (compound 1), which effectively controls the proliferation of Eimeria tenella and Toxoplasma gondii parasites in animal models. The efficacy of compound 1 in parasite-specific metabolic assays of infected host cell monolayers is critically dependent on the timing of compound addition Simultaneous addition of compound with extracellular E. tenella sporozoites or T. gondii tachyzoites inhibited [3H]-uracil uptake in a dose-dependent manner, while minimal efficacy was observed if compound addition was delayed, suggesting a block in host cell invasion. Immunofluorescence assays confirmed that compound 1 blocks the attachment of Eimeria sporozoites or

Toxoplasma tachyzoites to host cells and inhibits parasite invasion and gliding motility. Compound 1 also inhibits the secretion of micronemal adhesins (E. tenella MIC1, MIC2 and T. gondii MIC2), an activity closely linked to invasion and motility in apicomplexan parasites. The inhibition of T. gondii MIC2 adhesin secretion by compound 1 was not reversed by treatment with calcium ionophores or by ethanol (a microneme secretagogue), suggesting a block downstream of calcium-dependent events commonly associated with the discharge of the microneme organelle in tachyzoites. Transgenic Toxoplasma strains expressing cGMP-dependent protein kinase mutant alleles that are refractory to compound 1 (including cGMP-dependent protein kinase knock-out lines complemented by such mutants) were used as tools to validate the potential role of cGMP-dependent protein kinase in invasion and motility. In these strains, parasite adhesin secretion, gliding motility, host cell attachment and invasion displayed a reduced sensitivity to compound 1. These data clearly demonstrate that cGMP-dependent protein kinase performs an important role in the host-parasite interaction. OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS
RECORD (32 CITINGS)
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 21 Mar 2003
ACCESSION NUMBER: 2003:221703 HCAPLUS Full-text
DOCUMENT NUMBER: 138:253104
TITLE: Methods for serial analysis of gene expression of renal dipeptidase in colorectal tumors and their use in diagnosis
INVENTOR(S): Buckhaults, Phillip; Kinzler, Kenneth W.; Vogelstein, Bert
PATENT ASSIGNEE(S): The Johns Hopkins University School of Medicine, USA
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022863	A1	20030320	WO 2002-US28518 <--	20020909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002336453	A1	20030324	AU 2002-336453 <--	20020909
EP 1430071	A1	20040623	EP 2002-773302 <--	20020909
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005518781	T	20050630	JP 2003-526936	20020909

			<--		
US 20040265824	A1	20041230	US 2004-487934		20040823
			<--		
PRIORITY APPLN. INFO.:			US 2001-317494P	P	20010907
			<--		
			US 2002-383805P	P	20020530
			<--		
			WO 2002-US28518	W	20020909
			<--		

AB Serial anal. of gene expression (SAGE) was used to identify transcripts encoding secreted or cell-surface proteins that were expressed in benign and malignant tumors of the colorectum. A total of 290,394 tags were analyzed from normal, adenomatous and cancerous colonic epithelium. Of the 21,343 different transcripts observed, 957 were found to be differentially expressed between normal and adenoma or between normal and cancer. Forty-nine transcripts were elevated ≥ 20-fold in adenomas, 40 transcripts were elevated ≥ 20-fold in cancers, and nine transcripts were elevated ≥ 20-fold in both. The product of six of these nine transcripts (TGFBI, LYS, RDP, MIC-1, REGA, and DEHL) were predicted to be secreted or to reside on the cell surface and these were analyzed in more detail. The abnormal expression levels predicted by SAGE were confirmed by quant. PCR analyses of each of these six genes. Moreover, the cell types responsible for the elevated expression were identified by in situ hybridization and by PCR analyses of epithelial cells immunoaffinity purified from primary tumors. OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 16 Mar 2001

ACCESSION NUMBER:	2001:182475 HCAPLUS Full-text
DOCUMENT NUMBER:	135:16449
TITLE:	Targeting of soluble proteins to the rhoptries and micronemes in Toxoplasma gondii
AUTHOR(S):	Striepen, B.; Soldati, D.; Garcia-Reguet, N.; Dubremetz, J.-F.; Roos, D. S.
CORPORATE SOURCE:	Department of Biology, University of Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE:	Molecular and Biochemical Parasitology (2001), 113(1), 45-53 CODEN: MBIPDP; ISSN: 0166-6851
PUBLISHER:	Elsevier Science Ireland Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Rhoptry and microneme organelles of the protozoan parasite Toxoplasma gondii are closely associated with host cell adhesion/invasion and establishment of the intracellular parasitophorous vacuole. In order to study the targeting of proteins to these specialized secretory organelles, the authors have engineered green fluorescent protein (GFP) fusions to the rhoptry protein ROP1 and the microneme protein MIC3. Both chimeras are correctly targeted to the appropriate organelles, permitting deletion anal. to map protein subdomains critical for targeting. The propeptide and a central 146 amino acid region of ROP1 are sufficient to target GFP to the rhoptries. More extensive deletions result in a loss of rhoptry targeting; the GFP reporter is diverted into the parasitophorous vacuole via dense granules. Certain MIC3 deletion mutants were also secreted into the parasitophorous vacuole via dense granules, supporting the view that this route constitutes the default pathway in T. gondii, and that specific signals are required for sorting to rhoptries and micronemes. Deletions within the cysteine-rich central region of

MIC3 cause this protein to be arrested at various locations within the secretory pathway, presumably due to improper folding. Although correctly targeted to the appropriate organelles in living parasites, ROP1-GFP and MIC3-GFP fusion proteins were not secreted during invasion. GFP fusion proteins were readily secreted from dense granules, however, suggesting that protein secretion from rhoptries and micronemes might involve more than a simple release of organellar contents.
OS.CITING REF COUNT: 49 THERE ARE 49 CAPLUS RECORDS THAT CITE THIS RECORD (50 CITINGS)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 13 Feb 2001
ACCESSION NUMBER: 2001:105973 HCAPLUS Full-text
DOCUMENT NUMBER: 134:263300
TITLE: Identification and characterization of an escorter for two secretory adhesins in Toxoplasma gondii
AUTHOR(S): Reiss, Matthias; Viebig, Nicola; Brecht, Susan; Fourmaux, Marie-Noelle; Soete, Martine; Di Cristina, Manlio; Dubremetz, Jean Francois; Soldati, Dominique
CORPORATE SOURCE: Center for Molecular Biology, University of Heidelberg, Heidelberg, D-63120, Germany
SOURCE: Journal of Cell Biology (2001), 152(3), 563-578
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The intracellular protozoan parasite Toxoplasma gondii shares with other members of the Apicomplexa a common set of apical structures involved in host cell invasion. Micronemes are apical secretory organelles releasing their contents upon contact with host cells. We have identified a transmembrane micronemal protein MIC6, which functions as an escorter for the accurate targeting of two soluble proteins MIC1 and MIC4 to the micronemes. Disruption of MIC1, MIC4, and MIC6 genes allowed us to precisely dissect their contribution in sorting processes. We have mapped domains on these proteins that determine complex formation and targeting to the organelle. MIC6 carries a sorting signal(s) in its cytoplasmic tail whereas its association with MIC1 involves a lumenal EGF-like domain. MIC4 binds directly to MIC1 and behaves as a passive cargo mol. In contrast, MIC1 is linked to a quality control system and is absolutely required for the complex to leave the early compartments of the secretory pathway. MIC1 and MIC4 bind to host cells, and the existence of such a complex provides a plausible mechanism explaining how soluble adhesins act. We hypothesize that during invasion, MIC6 along with adhesins establishes a bridge between the host cell and the parasite. OS.CITING REF COUNT: 89 THERE ARE 89 CAPLUS RECORDS THAT CITE THIS RECORD (89 CITINGS)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 06 Dec 1999
ACCESSION NUMBER: 1999:767870 HCAPLUS Full-text
DOCUMENT NUMBER: 132:75916
TITLE: Alterations in surface hydrophobicity of Acinetobacter baumannii induced by meropenem
AUTHOR(S): Hostacka, A.

CORPORATE SOURCE: Institute of Preventive and Clinical Medicine, Bratislava, 833 01, Slovakia
SOURCE: Folia Microbiologica (Prague) (1999), 44(3), 267-270
CODEN: FOMIAZ; ISSN: 0015-5632
PUBLISHER: Institute of Microbiology, Academy of Sciences of the Czech Republic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six strains of Acinetobacter baumannii out of eleven strains tested revealed a strong hydrophobic character. This was demonstrated by adherence of bacteria to xylene in the range of 90-94%. Changes in surface hydrophobicity of these strains were studied after treatment with meropenem at subinhibitory concns. (sub-MICs) (1/4, 1/8, 1/16 or 1/32 of the MICs). All strains showed a reduced adherence to xylene after the action of meropenem at 1/4 or 1/16 of the MICs. Hydrophobicity of the treated bacteria was decreased to 1.3-70% (1/16 of the MICs) or to 12-86% (1/4 of the MICs), depending on the strain. A decrease in surface hydrophobicity of three strains was also observed after their exposure to meropenem at 1/8 of the MICs (to 18-71% of the control values). Meropenem at 1/32 of the MICs practically did not affect bacterial hydrophobic properties, with the exception of one strain.
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN
ED Entered STN: 31 Mar 1990
ACCESSION NUMBER: 1990:115619 HCAPLUS Full-text
DOCUMENT NUMBER: 112:115619
ORIGINAL REFERENCE NO.: 112:19507a,19510a
TITLE: Effect of sub-inhibitory concentrations of cefixime on the morphology, hemagglutination and adhesiveness of urinary Escherichia coli strains
AUTHOR(S): Desnottes, J. F.; Diallo, N.; Loubeyre, C.
CORPORATE SOURCE: Inst. Biopharm., Rhone-Poulenc Sante, Antony, F 92165, Fr.
SOURCE: Presse Medicale (1989), 18(32), 1572-5
CODEN: PRMEEM; ISSN: 0755-4982
DOCUMENT TYPE: Journal
LANGUAGE: French
AB The morphol., hemagglutination, and adhesiveness to epithelial cells of 3 uropathogenic E. coli strains pretreated with sub-MICs (1/2 to 1/64 the MIC) of cefixime during growth phase was studied. This treatment led to morphol. alterations of the bacteria with filament formation. The E. coli strains showed different hemagglutination profiles. In the presence of 1/2 to 1/32 the MIC, (mannose-resistant) E. coli showed a markedly altered capacity for hemagglutination. Adhesiveness was studied with human buccal cells for mannose-sensitive adhesins and human urothelial cells for mannose-resistant adhesins. A significant decrease of adherence was observed after pretreatment of E. coli strains with ≤1/32 the MIC of cefixime. Compared with other antibiotics active against E. coli, such as nalidixic acid, norfloxacin, and ampicillin, the effect of 1/8 the MIC of cefixime on adhesiveness was more pronounced. These results demonstrate that sub-MICs of cefixime induce a marked reduction in adhesiveness of E. coli. This property might potentiate the effectiveness of cefixime in the treatment of urinary tract infections due to E. coli. OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L13 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2010 ACS on STN

ED Entered STN: 26 Jun 1987
ACCESSION NUMBER: 1987:210886 HCAPLUS Full-text
DOCUMENT NUMBER: 106:210886
ORIGINAL REFERENCE NO.: 106:34149a,34152a
TITLE: Effects of subinhibitory concentrations of pefloxacin on the adherence of Staphylococcus aureus to human cells
AUTHOR(S): Desnottes, J. F.; Diallo, N.; Moret, G.; Santonja, R.
CORPORATE SOURCE: Dep. Microbiol., Rhone-Poulenc Inst. Biopharm., Antony, 92160, Fr.
SOURCE: Drugs under Experimental and Clinical Research (1987), 13(2), 69-73
CODEN: DECRDP; ISSN: 0378-6501
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The adherence of bacterial strains to eukaryotic cells can be influenced by subinhibitory concns. of antibiotics. The effect of sub- and infra-MICs of pefloxacin, a broad-spectrum antibacterial quinolone, on the adherence of S. aureus to human buccal cells, was studied. Six S. aureus strains belonging to several serotypes and all sensitive to pefloxacin were pretreated with serial 2-fold dilns. of the drug (from 1/2 to 1/1024 the MIC). After the adhesion test, 100 buccal cells were counted in randomly chosen microscopic fields using a Nomarski interference microscope and attachment was measured as the percentage of cells with at ≥50 adhering bacteria. Sub-MICs (1/2 and 1/4 the MIC) of pefloxacin increased the diameter of the 6 staphylococci. All of the strains, grown in the presence of pefloxacin, exhibited a markedly altered capacity for adhesion to buccal cells. The highest significant decrease was observed for 1/2 to 1/8 the MIC, although infra-MICs such as 1/1024 the MIC also decreased the attachment of S. aureus to buccal cells. These results were compared with those obtained with other antibiotics against S. aureus. OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS
RECORD (3 CITINGS)

FILE 'MEDLINE' ENTERED AT 17:00:52 ON 10 DEC 2010

FILE 'EMBASE' ENTERED AT 17:00:52 ON 10 DEC 2010

FILE 'WPIX' ENTERED AT 17:00:52 ON 10 DEC 2010

FILE 'JAPIO' ENTERED AT 17:00:52 ON 10 DEC 2010

FILE 'PASCAL' ENTERED AT 17:00:52 ON 10 DEC 2010

FILE 'DISSABS' ENTERED AT 17:00:52 ON 10 DEC 2010

L14 0 S L8
L15 25 S L10
L16 25 S L11
L17 35 S L15 OR L16
L18 19 S L17 AND (PY<2005 OR AY<2005 OR PRY<2005)

L19 15 DUP REM L18 (4 DUPLICATES REMOVED)

L19 ANSWER 1 OF 15 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2005-499385 [200551] WPIX
TITLE: Mutant strain of an Apicomplexa of family Sarcocystidae, useful in vaccines, especially against Toxoplasma, has inactivating mutations in both adhesins MIC1 and MIC3
DERWENT CLASS: B04; C06; D16
INVENTOR: BOUT D; CEREDE O; DUBREMETZ J; DUBREMETZ J F; LEBRUN M; SOETE M
PATENT ASSIGNEE: (CNRS-C) CENT NAT RECH SCI; (CNRS-C) CNRS CENT NAT RECH SCI; (INRG-C) INRA INST NAT RECH AGRONOMIQUE; (UYRA-N) UNIV RABELAIS FRANCOIS; (BOUT-I) BOUT D; (CERE-I) CEREDE O; (DUBR-I) DUBREMETZ J; (LEBR-I) LEBRUN M; (SOET-I) SOETE M
COUNTRY COUNT: 107

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
FR 2864966	A1	20050715	(200551)*	FR	33[5]	
WO 2005072754	A1	20050811	(200553)	FR		
EP 1703914	A1	20060927	(200663)	FR		
AU 2005207647	A1	20050811	(200707)	EN		
BR 2005006838	A	20070612	(200740)	PT		
JP 2007524409	T	20070830	(200759)	JA	36	
IN 2006DN04585	A	20070824	(200780)	EN		
EP 1703914	B1	20080416	(200831)	FR		
ZA 2006005535	A	20080326	(200836)	EN	52	
DE 602005006096 E		20080529	(200838)	DE		
US 20090053266	A1	20090226	(200917)	EN		
ES 2306114	T3	20081101	(200921)	ES		
DE 602005006096 T2		20090702	(200943)	DE		
NZ 548250	A	20100930	(201067)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2864966 A1		FR 2004-260	20040113
AU 2005207647 A1		AU 2005-207647	20050113
BR 2005006838 A		BR 2005-6838	20050113
DE 602005006096 E		DE 2005-602005006096	20050113
DE 602005006096 T2		DE 2005-602005006096	20050113
EP 1703914 A1		EP 2005-717409	20050113
EP 1703914 B1		EP 2005-717409	20050113
DE 602005006096 E		EP 2005-717409	20050113
ES 2306114 T3		EP 2005-717409	20050113
DE 602005006096 T2		EP 2005-717409	20050113
WO 2005072754 A1		WO 2005-FR74	20050113
EP 1703914 A1	PCT Application	WO 2005-FR74	20050113
BR 2005006838 A	PCT Application	WO 2005-FR74	20050113
JP 2007524409 T	PCT Application	WO 2005-FR74	20050113
IN 2006DN04585 A	PCT Application	WO 2005-FR74	20050113
EP 1703914 B1	PCT Application	WO 2005-FR74	20050113
DE 602005006096 E	PCT Application	WO 2005-FR74	20050113
US 20090053266 A1	PCT Application	WO 2005-FR74	20050113

DE 602005006096 T2	PCT Application	WO 2005-FR74	20050113
JP 2007524409 T		JP 2006-548351	20050113
ZA 2006005535 A		ZA 2006-5535	20060705
IN 2006DN04585 A		IN 2006-DN4585	20060808
US 20090053266 A1		US 2008-585721	20080808
NZ 548250 A		NZ 2005-548250	20050113
NZ 548250 A	PCT Application	WO 2005-FR74	20050113

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 602005006096 E	Based on	EP 1703914 A
ES 2306114 T3	Based on	EP 1703914 A
DE 602005006096 T2	Based on	EP 1703914 A
EP 1703914 A1	Based on	WO 2005072754 A
AU 2005207647 A1	Based on	WO 2005072754 A
BR 2005006838 A	Based on	WO 2005072754 A
JP 2007524409 T	Based on	WO 2005072754 A
EP 1703914 B1	Based on	WO 2005072754 A
DE 602005006096 E	Based on	WO 2005072754 A
DE 602005006096 T2	Based on	WO 2005072754 A
NZ 548250 A	Based on	WO 2005072754 A

PRIORITY APPLN. INFO: FR 2004-260 20040113
AN 2005-499385 [200551] WPIX
AB FR 2864966 A1 UPAB: 20090317
NOVELTY - Mutant strain (A) of an Apicomplexa of the family Sarcocystidae contains mutations that inactivate both of the adhesins MIC1 and MIC3.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a vaccine that contains (A).
ACTIVITY - Protozoacide.
MECHANISM OF ACTION - Vaccine. Mice were injected intraperitoneally with 20 tachyzoites of T. gondii in which both MIC1 and MIC3 were inactivated, then 1 month later challenged with 70 cysts of the cystogenic strain 76K. Practically no cerebral cysts were formed in the vaccinated animals (99.9 % protection).
USE - (A) are used to produce vaccines, specifically against toxoplasmosis.
ADVANTAGE - Simultaneous inactivation of MIC1 and MIC3 reduces both the capacity for invasion of host cells and in vivo virulence, but the mutants still provide effective protection (against formation of cerebral cysts after reinfection with the wild-type pathogen; transplacental transfer and transmission through infected meat).

L19 ANSWER 2 OF 15 MEDLINE on STN
ACCESSION NUMBER: 2004408589 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15313131
TITLE: The novel coccidian micronemal protein MIC11 undergoes proteolytic maturation by sequential cleavage to remove an internal propeptide.
AUTHOR: Harper Jill M; Zhou Xing W; Pszenny Viviana; Kafsack Bjorn F C; Carruthers Vern B
CORPORATE SOURCE: W. Harry Feinstone Department of Molecular Microbiology and Immunology, Johns Hopkins Bloomberg School of Public Health, 615 North Wolfe Street, Baltimore, MD 21205, USA.
CONTRACT NUMBER: 1S10-RR14702 (United States NCRR NIH HHS)
AI46675 (United States NIAID NIH HHS)
SOURCE: International journal for parasitology, {2004 Aug} Vol. 34, No. 9, pp. 1047-58.

Journal code: 0314024. ISSN: 0020-7519. L-ISSN: 0020-7519.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF539701; GENBANK-AF539703
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 18 Aug 2004
Last Updated on STN: 20 Dec 2004
Entered Medline: 17 Dec 2004

AB Host cell invasion is a key step in the life cycle of the intracellular parasite Toxoplasma gondii, the causative agent of toxoplasmosis. Attachment and invasion by this parasite is dependent on secretion of proteins from the micronemes, cigar-shaped organelles found in the apical end of the parasite. Although many of these proteins contain adhesive motifs suggestive of a role in parasite attachment, a growing subset of microneme proteins (MICs) do not possess adhesive sequences implying that they have alternative roles. We have identified a novel 16 kDa microneme protein, TgMIC11, that is conserved among several coccidian parasites. As it traffics through the secretory system, TgMIC11 is modified by two successive proteolytic events to remove an internal propeptide, resulting in the mature protein that consists of an alpha-chain and beta-chain tethered by a single disulfide bond. Dual staining immunofluorescence confirmed that TgMIC11 localises to the apical micronemes and, like other micronemal proteins, it is also secreted in a calcium dependent manner. This is the first microneme protein characterised to date in the phylum Apicomplexa that possesses this unique structure and undergoes maturation by removal of an internal propeptide.

L19 ANSWER 3 OF 15 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004113934 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15003497
TITLE: A role for coccidian cGMP-dependent protein kinase in motility and invasion.
AUTHOR: Wiersma Helen I; Galuska Stefan E; Tomley Fiona M; Sibley L David; Liberator Paul A; Donald Robert G K
CORPORATE SOURCE: Department of Human and Animal Infectious Disease Research, Merck Research Laboratories, Merck and Co Inc, PO Box 2000, Rahway, NJ 07065, USA.
SOURCE: International journal for parasitology, {2004 Mar 9} Vol. 34, No. 3, pp. 369-80.
Journal code: 0314024. ISSN: 0020-7519. L-ISSN: 0020-7519.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 9 Mar 2004
Last Updated on STN: 28 May 2004
Entered Medline: 27 May 2004

AB The coccidian parasite cGMP-dependent protein kinase is the primary target of a novel coccidiostat, the trisubstituted pyrrole 4-[2-(4-fluorophenyl)-5-(1-methylpiperidine-4-yl)-1H-pyrrol-3-yl] pyridine (compound 1), which effectively controls the proliferation of Eimeria tenella and Toxoplasma gondii parasites in animal models. The efficacy of compound 1 in parasite-specific metabolic assays of infected host cell monolayers is critically

dependent on the timing of compound addition. Simultaneous addition of compound with extracellular E. tenella sporozoites or T. gondii tachyzoites inhibited [3H]-uracil uptake in a dose-dependent manner, while minimal efficacy was observed if compound addition was delayed, suggesting a block in host cell invasion. Immunofluorescence assays confirmed that compound 1 blocks the attachment of Eimeria sporozoites or Toxoplasma tachyzoites to host cells and inhibits parasite invasion and gliding motility. Compound 1 also inhibits the secretion of micronemal adhesins (E. tenella MIC1, MIC2 and T. gondii MIC2), an activity closely linked to invasion and motility in apicomplexan parasites. The inhibition of T. gondii MIC2 adhesin secretion by compound 1 was not reversed by treatment with calcium ionophores or by ethanol (a microneme secretagogue), suggesting a block downstream of calcium-dependent events commonly associated with the discharge of the microneme organelle in tachyzoites. Transgenic Toxoplasma strains expressing cGMP-dependent protein kinase mutant alleles that are refractory to compound 1 (including cGMP-dependent protein kinase knock-out lines complemented by such mutants) were used as tools to validate the potential role of cGMP-dependent protein kinase in invasion and motility. In these strains, parasite adhesin secretion, gliding motility, host cell attachment and invasion displayed a reduced sensitivity to compound 1. These data clearly demonstrate that cGMP-dependent protein kinase performs an important role in the host-parasite interaction.

L19 ANSWER 4 OF 15 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-257161 [200230] WPIX
DOC. NO. CPI: C2002-076451 [200230]
TITLE: Use of azoxystrobin or its derivatives as anti-mold agents for preservation of foodstuffs, particularly cheese and salami
DERWENT CLASS: A97; D13; E13
INVENTOR: GOBBI P; MARTINI A
PATENT ASSIGNEE: (GOBB-I) GOBBI P; (MART-I) MARTINI A
COUNTRY COUNT: 95

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002000027 <--	A1	20020103	(200230)*	EN	19[0]	<--
AU 2001085767 <--	A	20020108	(200235)	EN		<--
EP 1294233 <--	A1	20030326	(200323)	EN		<--
IT 1318599 <--	B	20030827	(200374)	IT		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002000027	A1	WO 2001-EP6979	20010620
IT 1318599	B	IT 2000-MI1447	20000628
AU 2001085767	A	AU 2001-85767	20010620
EP 1294233	A1	EP 2001-965013	20010620
EP 1294233	A1	WO 2001-EP6979	20010620

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001085767 A	Based on	WO 2002000027 A
EP 1294233 A1	Based on	WO 2002000027 A

PRIORITY APPLN. INFO: IT 2000-MI1447 20000628
AN 2002-257161 [200230] WPIX
AB WO 200200027 A1 UPAB: 20050525
NOVELTY - Use of methyl (E)-2(-2(-6-(2-cyanophenoxy)-pyrimidin-4-iloxyphenyl))-3-methoxyacrylate (azoxystrobin) and its derivatives as anti-mold products for preservation of alimentary products, particularly cheese and salami, is new.
DETAILED DESCRIPTION - Use of methyl (E)-2(-2(-6-(2-cyanophenoxy)-pyrimidin-4-iloxyphenyl))-3- methoxyacrylate (azoxystrobin) and its derivatives, in which the phenoxy group, bound to the pyrimidine ring is substituted in position 2 by atoms of hydrogen, chlorine, fluorine, or trifluormethyl-thiocabamoyl-, nitro-, (iso)alkyl-groups, or with groups containing 1-4 carbon atoms and the phenyl group, bound at the position 2 of methylmethoxyacrylate substituted with atoms of chlorine or fluorine or with methyl-, nitro- or cyano-groups, as anti-mold products for surface treatment aimed for preservation of alimentary products.
USE - Azoxystrobin and its derivatives are used as antimold agents for preservation of foodstuffs, particularly cheese and salami.
ADVANTAGE - The doses of azoxystrobin are sufficiently low and do not alter the organoleptic characteristic of the treated food. Azoxystrobin is scarcely toxic after oral ingestion. In addition, azoxystrobin is neither mutagenic, nor carcinogenic and does not have reproductive effects.

L19 ANSWER 5 OF 15 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-629646 [200268] WPIX
CROSS REFERENCE: 1999-621834; 2002-620673; 2002-637831
DOC. NO. CPI: C2006-242344 [200680]
TITLE: Novel isolated polypeptide from Neospora caninum microneme-associated protein, useful for preparing a vaccine against neosporosis
DERWENT CLASS: B04; C06; D16
INVENTOR: BRAKE D A; DURTSCHI B A; KRISHNAN B R; MADURA R A; YODER S C
PATENT ASSIGNEE: (PFIZ-C) PFIZER PROD INC
COUNTRY COUNT: 25

PATENT INFO ABBR.:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
EP 1221487 <--	A2 20020710	(200268)*	EN	54[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1221487 A2 Div Ex		EP 1999-301746	19990309
EP 1221487 A2		EP 2002-2961	19990309

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1221487 A2	Div ex	EP 953641 A

PRIORITY APPLN. INFO: US 1998-112282P 19981215
US 1998-79389P 19980326

AN 2002-629646 [200268] WPIX

CR 1999-621834; 2002-620673; 2002-637831

AB EP 1221487 A2 UPAB: 20050706

NOVELTY - A purified or isolated polypeptide (I) chosen from a Neospora caninum microneme-associated (MIC)1 protein, a polypeptide having an amino acid sequence that is homologous to MIC1 protein, a polypeptide consisting of a portion of MIC1 protein (its homolog), their fusion protein, or analog or derivative of the above sequences, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an isolated polynucleotide molecule (II) comprising: (a) a nucleotide sequence encoding (I), and having nucleotides 138-1520 from a sequence (S1) of 2069 bp given in the specification; (b) the nucleotide sequence of the open reading frame (ORF) of a sequence (S2) of 2278 bp given in the specification; (c) the nucleotide sequence of the MIC1 encoding ORF of plasmid pRC340 (ATCC 209688); or (d) a homolog or portion of (II); (2) an isolated polynucleotide molecule (III) comprising a nucleotide sequence encoding a polypeptide that is homologous to a polypeptide comprising a sequence of 460 amino acids defined in the specification, or a sequence comprising nucleotides 1-137 or 1521-2069 of (S1), or their portions;

(3) an oligonucleotide molecule (IV) having a sequence chosen from 20 sequences given in the specification such as AATTAACCCTCACTAAAGGG, GTAATACGACTCACTATAGGGC, GCCGCGACTTCTTTTTCTCT, CTCGATCGCCTCCTTTACTG, AAAGCTCTTCGGCAGTTCAA and CCGCGCTACCACTTTCCA, and their complements;

(4) a recombinant vector (V) comprising (II) or (III); (5) a transformed host cell comprising (V); (6) an isolated antibody (VI) that specifically reacts to (I); (7) a genetic construct (VII) comprising a polynucleotide molecule that can be used to disable a Neospora gene comprising a polynucleotide molecule having a nucleotide sequence that is otherwise the same as a nucleotide sequence encoding a MIC1 protein from N.caninum or a portion of the nucleotide sequence, where the nucleotide further comprises one or more disabling mutations , or a polynucleotide molecule comprising a nucleotide sequence that naturally flanks in situ ORF of a N.caninum MIC1 gene, such that transformation of a N.caninum with (VII) results in disabling of MIC1 gene; (8) a N.caninum cell (VIII) modified by transformation with (VII) such that the MIC1 gene is disabled; (9) a vaccine (IX) against neosporosis, comprising an immunologically effective amount of a component comprising (I), (II), (III) or (VIII), and a veterinarily acceptable carrier; and (10) a kit for vaccinating a mammal against neosporosis comprising a container which comprises (I), (II), (III) or (VIII). ACTIVITY - Virucide; Antibacterial. No biological data is given.

MECHANISM OF ACTION - Vaccine.

USE - (I), (II), (III) or (VIII) is useful for preparing a vaccine against neosporosis. (VII) is useful for preparing modified N.caninum, by transforming N.caninum with (VII) and selecting transformed cells that express a mutant phenotype of MIC1 as a result of transformation. (IX) is useful for vaccinating a mammal against neosporosis (claimed), and other diseases or pathological conditions caused by bacteria or virus. (I) is useful as a diagnostic reagent to detect the presence of Neospora specific antibodies in a sample, and for producing antibodies which are useful as diagnostic reagents for screening Neospora specific proteins in samples. (II) and (III) are useful for amplifying a Neospora specific polynucleotide molecule, as a diagnostic reagent for detecting Neospora specific polynucleotides, and for isolating homologous genes from other species or strains of Neospora or other members of the Apicomplexa. (IV) is useful as primers in amplification of (II) or (III)

for differential disease diagnosis, or to encode or act as antisense molecules useful in gene regulation.

L19 ANSWER 6 OF 15 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-620673 [200267] WPIX
CROSS REFERENCE: 1999-621834; 2002-629646; 2002-637831
DOC. NO. CPI: C2006-242245 [200680]
TITLE: Novel Neospora caninum SAG1 protein useful for producing vaccines against neosporosis and as diagnostic reagents
DERWENT CLASS: B04; C06; D16
INVENTOR: BRAKE D A; DURTSCHI B A; KRISHNAN B R; MADURA R A; YODER S C
PATENT ASSIGNEE: (PFIZ-C) PFIZER PROD INC
COUNTRY COUNT: 18

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1221486 <--	A2	20020710	(200267)*	EN	54[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1221486 A2 Div Ex		EP 1999-301746	19990309
EP 1221486 A2		EP 2002-2960	19990309

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1221486 A2	Div ex	EP 953641 A

PRIORITY APPLN. INFO: US 1998-112282P 19981215
US 1998-79389P 19980326
AN 2002-620673 [200267] WPIX
CR 1999-621834; 2002-629646; 2002-637831
AB EP 1221486 A2 UPAB: 20050706
NOVELTY - A purified or isolated polypeptide (I) chosen from Neospora caninum SAG1 protein (I), a polypeptide having an amino acid sequence that is homologous to an N. caninum SAG1 protein, a polypeptide consisting of a portion of N. caninum SAG1 protein, or polypeptide which is homologous to it, an analog or derivative of (I), and a fusion protein comprising (I), is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) an isolated polynucleotide molecule (II) comprising a nucleotide sequence encoding a Neospora SAG1 protein, the nucleotide sequence comprising the open reading frame (ORF) of 1263 base pairs (S1), given in the specification from nucleotide 130-1089, or the nucleotide sequence of the SAG1-encoding ORF of plasmid pRC102 (ATCC 209687);
(2) an isolated polynucleotide molecule comprising a nucleotide sequence that is homologous to (II); (3) an isolated polynucleotide molecule comprising a nucleotide sequence encoding a polypeptide that is homologous to a polypeptide comprising a 319 residue amino acid sequence (S2), given in the specification;
(4) an isolated polynucleotide molecule consisting of a nucleotide sequence that is a substantial portion of any of the above nucleotide sequences;

(5) an isolated polynucleotide molecule comprising a nucleotide sequence of 1-129 or 1090-1263 of (S1) or its substantial portion; (6) an oligonucleotide molecule (III) chosen from (S5); (7) a recombinant vector (IV) comprising a polynucleotide molecule comprising a nucleotide sequence encoding (I); (8) a transformed host cell comprising (IV); (9) an isolated antibody (V) that specifically reacts to a N. caninum protein SAG1;
(10) a genetic construct (VI) comprising a polynucleotide molecule that can be used to disable a Neospora gene, comprising a polynucleotide molecule having a nucleotide sequence that is otherwise the same as a nucleotide sequence encoding a SAG1 protein from N. caninum, or a substantial portion of the nucleotide sequence, but which nucleotide further comprises one or more disabling mutation, or a polynucleotide molecule comprising a nucleotide sequence that naturally flanks in situ the ORF of a Neospora SAG1 gene, so that transformation of a Neospora cell with the genetic construct results in disabling of the SAG1 gene; (11) a Neospora cell (VII) that has been modified by transformation with (VI) so that the SAG1 gene has been disabled; (12) a vaccine (VIII) against neosporosis, comprising (I), a polynucleotide molecule comprising a nucleotide sequence encoding (I) or (VII); and
(13) a kit for vaccinating a mammal against neosporosis comprising a container comprising the above vaccine. (S5) is aattaaccctcactaaaggg, gtaatacgactcactatagggc, gccgcgacttcttttttctct, ctcgatcgcctcctttactg, tgctagtactggcgagtgaa, caggtttgccacacattttt, atgtttcctcctcgggcagtg, tcacgcgacgccagccgctatcg, gccctgacaattcgaccgcc, cccacaacatccaagtcgttc, gttttgcaccatccttagtg, gagagtttgctttgcaccg, and ccagccgagttcgtgttcaga, or aaagctcttcggcagttcaa, ccgcgctaccactttcca, gtaatacgactcactata, catcagagaaactggagt, ggccaagcttgctagtactggcga, and atccaatgcatcttgctgaatgccttaaaag.
ACTIVITY - Protozoacide; Virucide; Antibacterial; Antifungal. No biological data is given.
MECHANISM OF ACTION - Vaccine.
USE - (I), a polynucleotide molecule encoding (I), or (VII) is useful for preparing a vaccine against neosporosis. (VI) is useful for preparing modified Neospora cells, that express a mutant phenotype of SAG1. (VIII) is useful for vaccinating a mammal against neosporosis. The second component in the vaccine is capable of inducing, or contributing to the induction of a protective response against a pathogen such as bovine herpes virus, bovine respiratory syncytial virus, bovine viral diarrhea virus, parainfluenza virus types I, II or III, Leptospira spp., Campylobacter spp., Staphylococcus aureus, Streptococcus agalactiae, Mycoplasma spp., Klebsiella spp., Salmonella spp., rotavirus, coronavirus, rabies, Pasteurella hemolytica, Pasteurella multocida, Clostridia spp., Tetanus toxoid, Escherichia coli, Cryptosporidium spp., Eimeria spp. or Trichomonas spp.. (All claimed). (I) is useful as diagnostic reagents, to screen for Neospora-specific antibodies in blood or serum samples from animals, or as antigens to raise polyclonal or monoclonal antibodies which are useful as diagnostic reagents and to screen for Neospora-specific proteins in cell, tissue or fluid samples from an animal. (III) is useful as primers in amplification of Neospora-specific polynucleotide molecule for use, e.g. in differential disease diagnosis, or to encode or act as antisense molecules useful in gene regulation. The sequences of the polynucleotide molecules can also be used to design primers for use in isolating homologous genes from other species or strains of Neospora.

L19 ANSWER 7 OF 15 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-637831 [200269] WPIX
CROSS REFERENCE: 1999-621834; 2002-620673; 2002-629646
DOC. NO. CPI: C2006-242427 [200680]
TITLE: Novel Neospora caninum GRA2 protein useful for producing vaccines against neosporosis and as diagnostic reagents

DERWENT CLASS: B04; C06; D16
INVENTOR: BRAKE D A; DURTSCHI B A; KRISHNAN B R; MADURA R A; YODER S C
PATENT ASSIGNEE: (PFIZ-C) PFIZER PROD INC
COUNTRY COUNT: 18

PATENT INFO ABBR.:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
EP 1221485 <--	A2 20020710	(200269)*	EN	55[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1221485 A2 Div Ex		EP 1999-301746	19990309
EP 1221485 A2		EP 2002-2959	19990309

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1221485 A2	Div ex	EP 953641 A

PRIORITY APPLN. INFO: US 1998-112282P 19981215
US 1998-79389P 19980326

AN 2002-637831 [200269] WPIX
CR 1999-621834; 2002-620673; 2002-629646
AB EP 1221485 A2 UPAB: 20050706

NOVELTY - A substantially purified or isolated polypeptide (I) chosen from Neospora caninum GRA2 protein (I), a polypeptide with an amino acid sequence that is homologous to an N.caninum GRA2 protein, a polypeptide consisting of a portion of N.caninum GRA2 protein, or polypeptide which is homologous to it, an analog or derivative of (I), and a fusion protein comprising (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) an isolated polynucleotide molecule (II) comprising a nucleotide sequence encoding a Neospora GRA2 protein, the nucleotide sequence comprising the open reading frame (ORF) of 1031 bp (S1) given in the specification from nucleotide 25-660 or the nucleotide sequence of the GRA2-encoding ORF of plasmid pRC5 (ATCC 209686); (2) an isolated polynucleotide molecule comprising a nucleotide sequence that is homologous to (II); (3) an isolated polynucleotide molecule comprising a nucleotide sequence encoding a polypeptide that is homologous to a polypeptide comprising a sequence (S2) of 211 amino acids given in the specification;

(4) an isolated polynucleotide molecule consisting of a nucleotide sequence that is a substantial portion of any of the above nucleotide sequences;

(5) an isolated polynucleotide molecule comprising a nucleotide sequence of 1-24 or 661-1031 of (S1) or its substantial portion; (6) an oligonucleotide molecule (III) chosen from (i); (ii); (iii); (iv); (v); (vi); (vii); (viii); (ix); (x); (xi); (xii); (xiii); (xiv); (xv); (xvi); (xvii); (xviii); and (xix), or their complements; (7) a recombinant vector (IV) comprising a polynucleotide molecule comprising a nucleotide sequence encoding (I); (8) a transformed host cell comprising (IV); (9) an isolated antibody (V) that specifically reacts to a N.caninum protein GRA2;

(10) a genetic construct (VI) comprising a polynucleotide molecule that can be used to disable a Neospora gene, comprising a polynucleotide molecule having a nucleotide sequence that is otherwise the same as a nucleotide sequence encoding a GRA2 protein from N.caninum, or a substantial portion of the

nucleotide sequence, but which nucleotide further comprises one or more disabling mutations, or a polynucleotide molecule comprising a nucleotide sequence that naturally flanks in situ the ORF of a Neospora GRA2 gene, such that transformation of a Neospora cell with the genetic construct results in disabling of the GRA2 gene; (11) a Neospora cell (VII) that has been modified by transformation with (VI) such that the GRA2 gene has been disabled; (12) a vaccine (VIII) against neosporosis, comprising (I), a polynucleotide molecule comprising a nucleotide sequence encoding (I) or (VII); and (13) a kit for vaccinating a mammal against neosporosis comprising a container comprising (VIII). aattaaccctcactaaaggg (i);
gtaatacgactcactatagggc (ii); gccgcgacttctttttctct (iii);
ctcgatcgcctcctttactg (iv);
tgctagtactggcgagtgaa (v);
caggtttgccacacattttt (vi);
atgtttcctcctcgggcagtg (vii); tcacgcgacgccagccgctatcg (viii);
gccctgacaattcgaccgcc (ix);
cccacaacatccaagtcgttc (x);
gttttgcaccatccttagtg (xi);
gagagtttgctttgcaccg (xii); and ccagccgagttcgtgttcaga (xiii); or
aaagctcttcggcagttcaa (xiv);
ccgcgctaccactttcca (xv);
gtaatacgactcactata (xvi);
catcagagaaactggagt (xvii);
ggccaagcttgctagtactggcga (xviii); and atccaatgcatcttgctgaatgccttaaaag (xix).
ACTIVITY - Protozoacide; Virucide; Antibacterial.
MECHANISM OF ACTION - Vaccine. No suitable data given.
USE - (I), a polynucleotide molecule encoding (I), or (VII) is useful for preparing a vaccine against neosporosis. (VI) is useful for preparing modified Neospora cells, that express a mutant phenotype of GRA2. (VIII) is useful for vaccinating a mammal against neosporosis. The second component in the vaccine is capable of inducing, or contributing to the induction of a protective response against a pathogen such as bovine herpes virus, bovine respiratory syncytial virus, bovine viral diarrhea virus, parainfluenza virus types I, II or III, Leptospira spp., Campylobacter spp., Staphylococcus aureus, Streptococcus agalactiae, Mycoplasma spp., Klebsiella spp., Salmonella spp., rotavirus, coronavirus, rabies, Pasteurella hemolytica, Pasteurella multocida, Clostridia spp., Tetanus toxoid, Escherichia coli, Cryptosporidium spp., Eimeria spp. or Trichomonas spp. (claimed). (I) is useful as diagnostic reagents, to screen for Neospora-specific antibodies in blood or serum samples from animals, or as antigens to raise polyclonal or monoclonal antibodies which are useful as diagnostic reagents and to screen for Neospora-specific proteins in cell, tissue or fluid samples from an animal. (III) is useful as primers in amplification of Neospora-specific polynucleotide molecule for use, e.g. in differential disease diagnosis, or to encode or act as antisense molecules useful in gene regulation. The sequences of the polynucleotide molecules can also be used to design primers for use in isolating homologous genes from other species or strains of Neospora.

L19 ANSWER 8 OF 15 MEDLINE on STN
ACCESSION NUMBER: 2002353747 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12032066
TITLE: The Toxoplasma gondii protein MIC3 requires pro-peptide cleavage and dimerization to function as adhesin.
AUTHOR: Cerede Odile; Dubremetz Jean Francois; Bout Daniel; Lebrun Maryse
CORPORATE SOURCE: UMR Universite-INRA d'Immunologie Parasitaire, Faculte des Sciences Pharmaceutiques et Biologiques, 31 Avenue Monge, F-37200 Tours, France.

SOURCE: The EMBO journal, (2002 Jun 3) Vol. 21, No. 11, pp. 2526-36. Journal code: 8208664. ISSN: 0261-4189. L-ISSN: 0261-4189. Report No.: NLM-PMC126022.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200207
ENTRY DATE: Entered STN: 7 Jul 2002 Last Updated on STN: 20 Jul 2002 Entered Medline: 19 Jul 2002
MEDLINE REFERENCE COUNT: 24 There are 24 cited references available in MEDLINE for this document.

AB Attachment and invasion of host cells by apicomplexan parasites involve the exocytosis of the micronemal proteins (MICs). Most MICs are adhesins, which show homology with adhesive domains from higher eukaryote proteins and undergo proteolytic processing of unknown biological significance during their transport to micronemes. In Toxoplasma gondii, the micronemal homodimeric protein MIC3 is a potent adhesin that displays features shared by most Apicomplexa MICs. We have developed an original MIC3-binding assay by transfection of mammalian cells with complete or truncated MIC3 gene sequences and demonstrated that the receptor binding site of MIC3 is located in the N-terminal chitin-binding-like domain, which remains poorly accessible until the adjacent pro-peptide has been cleaved, and that binding requires dimerization. We have localized the dimerization domain in the C-terminal end of the protein and shown that it is able to convert MIC8, a monomeric micronemal protein sharing the MIC3 lectin-like domain, into a dimer able to interact with host cell receptors. These findings shed new light on molecular mechanisms that control functional maturation of MICs.

L19 ANSWER 9 OF 15 MEDLINE on STN
ACCESSION NUMBER: 2002291241 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12031505
TITLE: A novel root-specific gene, MIC-3, with increased expression in nematode-resistant cotton (Gossypium hirsutum L.) after root-knot nematode infection.
AUTHOR: Zhang Xiang-Dong; Callahan Franklin E; Jenkins Johnie N; Ma Din-Pow; Karaca Mehmet; Saha Sukumar; Creech Roy G
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Box 9650, Mississippi State University, Mississippi State, MS 39762, USA.
SOURCE: Biochimica et biophysica acta, (2002 Jun 7) Vol. 1576, No. 1-2, pp. 214-8. Journal code: 0217513. ISSN: 0006-3002. L-ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) (RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AY072782; GENBANK-AY072783
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 29 May 2002

Last Updated on STN: 28 Sep 2002
Entered Medline: 20 Sep 2002

AB A full-length cDNA, MIC-3, has been identified from a lambda ZAPII cDNA library constructed from the mRNA of nematode-resistant cotton (Gossypium hirsutum L.) roots after infection with root-knot nematode (Meloidogyne incognita). The putative open reading frame of MIC-3 encoded a protein of 141 amino acids with a calculated molecular mass of 15.3 kDa. Seven alternative polyadenylation sites have been identified for the MIC-3 transcripts, and the major transcripts are the longest ones. The MIC-3 gene contains a single intron within its coding region and belongs to a novel, multi-gene family containing up to six members. Expression of MIC-3 is root localized and specifically enhanced in the nematode induced, immature galls of resistant cotton line M-249, suggesting that MIC-3 may play a critical role in the resistance response to root-knot nematode.

L19 ANSWER 10 OF 15 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2001324190 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 11254953
TITLE: Targeting of soluble proteins to the rhoptries and micronemes in Toxoplasma gondii.
AUTHOR: Striepen B; Soldati D; Garcia-Reguet N; Dubremetz J F; Roos D S
CORPORATE SOURCE: Department of Biology, University of Pennsylvania, Philadelphia, PA 19104, USA.. striepen@cb.uga.edu
SOURCE: Molecular and biochemical parasitology, (2001 Mar) Vol. 113, No. 1, pp. 45-53.
Journal code: 8006324. ISSN: 0166-6851. L-ISSN: 0166-6851.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200106
ENTRY DATE: Entered STN: 11 Jun 2001
Last Updated on STN: 11 Jun 2001
Entered Medline: 7 Jun 2001

AB Rhoptry and microneme organelles of the protozoan parasite Toxoplasma gondii are closely associated with host cell adhesion/invasion and establishment of the intracellular parasitophorous vacuole. In order to study the targeting of proteins to these specialized secretory organelles, we have engineered green fluorescent protein (GFP) fusions to the rhoptry protein ROP1 and the microneme protein MIC3. Both chimeras are correctly targeted to the appropriate organelles, permitting deletion analysis to map protein subdomains critical for targeting. The propeptide and a central 146 amino acid region of ROP1 are sufficient to target GFP to the rhoptries. More extensive deletions result in a loss of rhoptry targeting; the GFP reporter is diverted into the parasitophorous vacuole via dense granules. Certain MIC3 deletion mutants were also secreted into the parasitophorous vacuole via dense granules, supporting the view that this route constitutes the default pathway in T. gondii, and that specific signals are required for sorting to rhoptries and micronemes. Deletions within the cysteine-rich central region of MIC3 cause this protein to be arrested at various locations within the secretory pathway, presumably due to improper folding. Although correctly targeted to the appropriate organelles in living parasites, ROP1-GFP and MIC3-GFP fusion proteins were not secreted during invasion. GFP fusion proteins were readily secreted from dense granules, however, suggesting that protein secretion from

rhoptries and micronemes might involve more than a simple release of organellar contents.

L19 ANSWER 11 OF 15 MEDLINE on STN
ACCESSION NUMBER: 2000128266 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10664881
TITLE: Alterations in surface hydrophobicity of Acinetobacter baumannii induced by meropenem.
AUTHOR: Hostacka A
CORPORATE SOURCE: Institute of Preventive and Clinical Medicine, Bratislava, Slovakia.
SOURCE: Folia microbiologica, (1999) Vol. 44, No. 3, pp. 267-70.
Journal code: 0376757. ISSN: 0015-5632. L-ISSN: 0015-5632.
PUB. COUNTRY: Czech Republic
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 9 Mar 2000
Last Updated on STN: 9 Mar 2000
Entered Medline: 24 Feb 2000

AB Six strains of Acinetobacter baumannii out of eleven strains tested revealed a strong hydrophobic character. This was demonstrated by adherence of bacteria to xylene in the range of 90-94%. Changes in surface hydrophobicity of these strains were studied after treatment with meropenem at subinhibitory concentrations (sub-MICs) (1/4, 1/8, 1/16 or 1/32 of the MICs). All strains showed a reduced adherence to xylene after the action of meropenem at 1/4 or 1/16 of the MICs. Hydrophobicity of the treated bacteria was decreased to 1.3-70% (1/16 of the MICs) or to 12-86% (1/4 of the MICs), depending on the strain. A decrease in surface hydrophobicity of three strains was also observed after their exposure to meropenem at 1/8 of the MICs (to 18-71% of the control values). Meropenem at 1/32 of the MICs practically did not affect bacterial hydrophobic properties, with the exception of one strain.

L19 ANSWER 12 OF 15 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2001387965 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 11441534
TITLE: Antigen S1, encoded by the MIC1 gene, is characterized as an epitope of human CD59, enabling measurement of mutagen-induced intragenic deletions in the AL cell system.
AUTHOR: Wilson A B; Seilly D; Willers C; Vannais D B; McGraw M; Waldren C A; Hei T K; Davies A
CORPORATE SOURCE: Microbial Immunology Group, Centre for Veterinary Science, University of Cambridge, UK.
CONTRACT NUMBER: 5T32CA09236 (United States NCI NIH HHS)
CA36447 (United States NCI NIH HHS)
SOURCE: Somatic cell and molecular genetics, (1999 May) Vol. 25, No. 3, pp. 147-57.
Journal code: 8403568. ISSN: 0740-7750. L-ISSN: 0740-7750.
(Investigators: Chatterjee A, Lawrence Berkeley Lab, Berkeley, CA)
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 200107
ENTRY DATE: Entered STN: 30 Jul 2001
Last Updated on STN: 23 Jun 2002
Entered Medline: 26 Jul 2001

AB S1 cell membrane antigen is encoded by the MIC1 gene on human chromosome 11. This antigen has been widely used as a marker for studies in gene mapping or in analysis of mutagen -induced gene deletions/mutations, which utilized the human-hamster hybrid cell-line, AL-J1, carrying human chromosome 11. Evidence is presented here which identifies S1 as an epitope of CD59, a cell membrane complement inhibiting protein. E7.1 monoclonal antibody, specific for the S1 determinant, was found to react strongly with membrane CD59 in Western blotting, and to bind to purified, urinary form of CD59 in ELISAs. Cell membrane expression of S1 on various cell lines always correlated with that of CD59 when examined by immunofluorescent staining. In addition, E7.1 antibody inhibited the complement regulatory function of CD59. Identification of S1 protein as CD59 has increased the scope of the AL cell system by enabling analysis of intragenic mutations, and multiplex PCR analysis of mutated cells is described, showing variable loss of CD59 exons.

L19 ANSWER 13 OF 15 DISSABS COPYRIGHT (C) 2010 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 94:19910 DISSABS Order Number: AAR9414522
TITLE: TRAITS AFFECTING SURVIVAL AND ANTAGONISM OF FLUORESCENT PSEUDOMONADS FOR BIOLOGICAL CONTROL OF CITRUS ROOT ROT (PHYTOPHTHORA PARASITICA, COPPER RESISTANCE)
AUTHOR: YANG, CHING-HONG [PH.D.]; COOKSEY, DONALD A. [advisor]
CORPORATE SOURCE: UNIVERSITY OF CALIFORNIA, RIVERSIDE (0032)
SOURCE: Dissertation Abstracts International, (1993) Vol. 54, No. 12B, p. 6007. Order No.: AAR9414522. 122 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
ENTRY DATE: Entered STN: 19940603
Last Updated on STN: 19940603

AB Pseudomonas fluorescens 09906 and P. putida 06909 suppressed root rot of citrus caused by Phytophthora parasitica. A mycelial column assay was developed to measure adhesion of the bacteria to the fungus and to enrich for adhesion-defective mutants from pools of Tn5 mutants. The adhesion-defective mutants recovered were all nonmotile (Mot$\sp-$) and lacked flagella. More than 65% of wild-type cells of both bacterial strains adhered to the mycelial column, but less than 14% of Mot$\sp-$ mutant cell adhered. Mot$\sp-$ mutants of both bacterial strains had reduced ability to inhibit growth of the fungus in vitro. In addition, Tn5 mutants of both bacterial strains that were defective in siderophore production had reduced ability to inhibit growth of the fungus in vitro. Pseudomonas fluorescens 09906 was resistant to CuSO$\sb4$ in a minimal medium (MIC = 1.6 mM). Two copper-sensitive Tn5 mutants 09906.2, 09906.3 (MIC = 0.16 mM) and one intermediate copper sensitive mutant 09906.4 (MIC = 1.0), of this strain were obtained. The insertions causing copper sensitivity in these mutants were outside of the chromosomal region shown to be homologous to the cop operon of P. syringae. In a sterilized citrus grove soil, populations of the copper-sensitive mutant and wild-type strain were

similar, but in nonsterile citrus soil, populations of the copper-sensitive mutant were 112-fold lower than the wild type after 35 days. In a sterile loamy sand without addition of copper, the copper sensitive mutant survived as well as the wild type. When the loamy sand was supplemented with 10 and 15 μg of CuSO$\sb4$ per gram of soil, populations of 09906.2 were 27 and 562-fold lower than 09906 after a 25-day period. Copper resistance may therefore be an important factor in survival of soil bacteria used for biological control where copper fungicides are frequently applied. In addition, the copper resistance genes of P. fluorescens 09906 play a role in competitive fitness when soil has a low copper content. A cosmid clone pPF1 of P. fluorescens was identified which was able to confer copper resistance to both copper sensitive mutants 09906.2 and 09906.3. Subclones of pPF1 were further transferred to another copper sensitive Pseudomonas strain 039343 and were able to express copper resistance in this strain. The smallest fragment that conferred copper resistance when transferred to strain 039343 was a 3.5 kb EcoRI fragment.

L19 ANSWER 14 OF 15 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 1990046506 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 2530535
TITLE: [Effect of sub-inhibitory concentrations of cefixime on the morphology, hemagglutination and adhesiveness of urinary strains of Escherichia coli].
Action de concentrations sub-inhibitrices de cefixime sur la morphologie, le pouvoir hemagglutinant et d' adhesion de souches urinaires d'Escherichia coli.
AUTHOR: Desnottes J F; Diallo N; Loubeyre C
CORPORATE SOURCE: Rhone-Poulenc Sante, Institut de Biopharmacie, Antony.
SOURCE: Presse medicale (Paris, France : 1983), (1989 Oct 11) Vol. 18, No. 32, pp. 1572-5.
Journal code: 8302490. ISSN: 0755-4982. L-ISSN: 0755-4982.
PUB. COUNTRY: France
DOCUMENT TYPE: (COMPARATIVE STUDY)
(ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198912
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 21 Dec 1989

AB The treatment of urinary tract infections is one of the indications of cefixime, a new oral cephem. The aim of the present work was to study the in vitro effect of cefixime sub- and infra-MICs on the morphology, haemagglutination and adhesiveness to epithelial cells of three uropathogenic Escherichia coli strains pretreated with sub- MICs (1/2 to 1/64 the MIC) of cefixime during growth phase (37 degrees C for 18 h). This treatment led to morphological alterations of the bacteria with filament formation. The E. coli strains showed different haemagglutination profiles (MS; MS-MR; MR). In the presence of cefixime sub-MICs (1/2 to 1/32 the MIC), MR E. coli showed a markedly altered capacity for haemagglutination (using guinea pig, human P1 and p erythrocytes). Adhesiveness was studied with human buccal cells for MS adhesins and human urothelial cells for MR adhesins. A significant decrease of adherence (70-90 per cent) was observed after pretreatment of E. coli strains with cefixime (up to 1/32 the MIC). Compared with other antibiotics active against E. coli, such as nalidixic acid, norfloxacin and ampicillin, the

effect of 1/8 the MIC of cefixime on adhesiveness, was more pronounced. These results demonstrate that sub-MICs of cefixime induce a marked reduction in adhesiveness of E. coli. This property might potentiate the effectiveness of cefixime in the treatment of urinary tract infections due to E. coli.

L19 ANSWER 15 OF 15 MEDLINE on STN
ACCESSION NUMBER: 1987218057 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3472868
TITLE: Effects of subinhibitory concentrations of pefloxacin on the adherence of Staphylococcus aureus to human cells.
AUTHOR: Desnottes J F; Diallo N; Moret G; Santonja R
SOURCE: Drugs under experimental and clinical research, {1987} Vol. 13, No. 2, pp. 69-73. Journal code: 7802135. ISSN: 0378-6501. L-ISSN: 0378-6501.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: (COMPARATIVE STUDY) Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198707
ENTRY DATE: Entered STN: 5 Mar 1990 Last Updated on STN: 5 Mar 1990 Entered Medline: 17 Jul 1987

AB The adherence of bacterial strains to eukaryotic cells can be influenced by subinhibitory concentrations of antibiotics. The effect of sub- and infra-MICs of pefloxacin, a new broad-spectrum antibacterial quinolone, on the adherence of Staphylococcus aureus to human buccal cells, was studied. Six S. aureus strains belonging to several serotypes and all sensitive to pefloxacin were pretreated with serial twofold dilutions of the drug (from 1/2 to 1/1024 the MIC). After the adhesion test, 100 buccal cells were counted in randomly chosen microscopic fields using a Nomarski interference microscope and attachment was measured as the percentage of cells with at least 50 or more adhering bacteria. Sub-MICs (1 /2 and 1/4 the MIC) of pefloxacin increased the diameter of the six staphylococci. All of the strains, grown in the presence of pefloxacin, exhibited a markedly altered capacity for adhesion to buccal cells. The highest significant decrease was observed for 1/2 to 1/8 the MIC, although infra-MICs such as 1/1024 the MIC also decreased the attachment of S. aureus to buccal cells. These results were compared with those obtained with other antibiotics active against S. aureus.

FILE 'MEDLINE' ENTERED AT 17:03:54 ON 10 DEC 2010

FILE LAST UPDATED: 9 Dec 2010 (20101209/UP). FILE COVERS 1946 TO DATE.

MEDLINE and LMEDLINE have been updated with the 2010 Medical Subject Headings (MeSH) vocabulary and tree numbers from the U.S. National Library of Medicine (NLM). Additional information is available at

http://www.nlm.nih.gov/pubs/techbull/nd09/nd09_medline_data_changes_2010.html.

The Medline file has been reloaded effective January 24, 2010. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.
See HELP RANGE before carrying out any RANGE search.

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L20       83305 SEA FILE=MEDLINE ABB=ON  PLU=ON  ("CELL ADHESION MOLECULES"
                /CT OR D12.776.395.550.200./CT OR D12.776.543.550.200./CT
                OR D23.50.301.350./CT)
L21        8491 SEA FILE=MEDLINE ABB=ON  PLU=ON  (TOXOPLASMA/CT OR
                B1.43.75.189.250.750.800./CT)
L22          66 SEA FILE=MEDLINE ABB=ON  PLU=ON  L20 AND L21
L23      491657 SEA FILE=MEDLINE ABB=ON  PLU=ON  (MUTATION/CT OR G5.365.590./CT)
L24       18280 SEA FILE=MEDLINE ABB=ON  PLU=ON  ("CHROMOSOME DELETION"/CT
                OR C23.550.210.175./CT OR G5.355.600.800.180./CT OR
                G5.365.590.175.177./CT OR G5.365.590.29.530.175./CT OR
                G5.365.590.762.180./CT)
L25       29400 SEA FILE=MEDLINE ABB=ON  PLU=ON  ("GENE DELETION"/CT OR
                G5.355.600.800.320./CT OR G5.365.590.762.320./CT)
L26      169532 SEA FILE=MEDLINE ABB=ON  PLU=ON  (MUTAGENESIS/CT OR
                G5.355.600./CT)
L27           3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L22 AND ((L23 OR L24 OR
                L25 OR L26))

L27  ANSWER 1 OF 3     MEDLINE on STN
ACCESSION NUMBER:    2010733657     MEDLINE  Full-text
DOCUMENT NUMBER:     PubMed ID: 20385082
TITLE:               Mic1-3 Knockout Toxoplasma gondii is a good candidate
                     for a vaccine against T. gondii-induced abortion in
                     sheep.
AUTHOR:              Mevelec Marie-Noelle; Ducournau Celine; Bassuny Ismael
                     Alaa; Olivier Michel; Seche Edouard; Lebrun Maryse;
                     Bout Daniel; Dimier-Poisson Isabelle
CORPORATE SOURCE:    Universite Francois Rabelais, INRA, UMR 0483
                     Universite-INRA d'Immunologie Parasitaire, Vaccinologie
                     et Biotherapie Anti-infectieuse, IFR136 Agents
                     Transmissibles et Infectiologie, UFR de Pharmacie, 31
                     avenue Monge, 37200 Tours, France..
                     mevelec@univ-tours.fr
SOURCE:              Veterinary research, (2010 Jul-Aug) Vol. 41, No. 4, pp.
                     49.  Electronic Publication: 2010-04-13.
                     Journal code: 9309551. ISSN: 0928-4249. L-ISSN:
                     0928-4249.
PUB. COUNTRY:        France
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         201009
ENTRY DATE:          Entered STN: 11 Aug 2010
                     Last Updated on STN: 16 Sep 2010
                     Entered Medline: 14 Sep 2010
ED   Entered STN: 11 Aug 2010
     Last Updated on STN: 16 Sep 2010
     Entered Medline: 14 Sep 2010
AB   This study assessed the effectiveness of a mutant strain of Toxoplasma gondii
     (RH strain) lacking the mic1 and mic3 genes (Mic1-3KO) against Toxoplasma
     abortion in sheep.  Ewes were inoculated subcutaneously with 10(5) Mic1-3KO
     tachyzoites in three independent experiments. Following vaccination, Mic1-3KO
     induced a mild febrile response and serum IgG antibodies, which persisted
     throughout the experiments. Tissue cysts formed in the sheep, but were not,
     under our experimental conditions, infectious when given orally.  Ewes were
     mated two months after vaccination and were orally challenged with the PRU
     strain of T. gondii at mid-gestation (400 oocysts in Experiments 1 and 2; 100
     oocysts in Experiment 3).  Challenge of vaccinated pregnant ewes resulted in a
     slight febrile response, whereas unvaccinated ewes developed a more severe,
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characteristic febrile response of longer duration. After challenge, all unvaccinated ewes aborted whereas 62%, 91% and 64% (Experiments 1, 2 and 3 respectively) of the lambs from vaccinated ewes were viable, with no clinical signs of infection. Micl-3KO was as effective as S48, the strain used as a live vaccine for sheep (Toxovax). A dose of 10(5) Micl-3KO tachyzoites was sufficient to induce protection (versus a dose of 2x10(6)). Both subcutaneous and intraperitoneal injections were effective. Moreover, preliminary results showed the potential of Micl-3KO to reduce the development of tissue cysts in lambs born to vaccinated ewes. This study demonstrates that Micl-3KO is a potent vaccine candidate. Copyright (c) INRA, EDP Sciences, 2010.

L27 ANSWER 2 OF 3 MEDLINE on STN
ACCESSION NUMBER: 2008263686 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 18424713
TITLE: IL-12 signaling drives CD8+ T cell IFN-gamma production and differentiation of KLRG1+ effector subpopulations during Toxoplasma gondii Infection.
AUTHOR: Wilson Douglas C; Matthews Suzanne; Yap George S
CORPORATE SOURCE: Department of Molecular Microbiology and Immunology, Brown University, Providence, RI 02912, USA.
CONTRACT NUMBER: AI 50618 (United States NIAID NIH HHS)
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (2008 May 1) Vol. 180, No. 9, pp. 5935-45.
Journal code: 2985117R. ISSN: 0022-1767. L-ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200806
ENTRY DATE: Entered STN: 22 Apr 2008
Last Updated on STN: 5 Jun 2008
Entered Medline: 4 Jun 2008

ED Entered STN: 22 Apr 2008
Last Updated on STN: 5 Jun 2008
Entered Medline: 4 Jun 2008

AB IFN-gamma-producing CD8(+) T lymphocytes are essential effector cells that mediate protective immunity during murine toxoplasmosis, and yet their effector development remains poorly characterized. Vaccination with the carbamoyl phosphate synthase (CPS) mutant strain of Toxoplasma gondii was used to examine the CD8(+) T cell response in the peritoneal effector site. Four CTL subpopulations with varying effector potentials were defined based on the expression of effector molecules and the cell surface activation markers CD62L and killer cell lectin-like receptor G1 (KLRG1). Further phenotypic analysis revealed that the acquisition of KLRG1 among effector subpopulations correlated with the down-regulation of both IL-7R and CD27, suggesting that KLRG1 marks dominant, end-stage effector cells. Using gene-targeted mice, we tested the in vivo requirements of key IL-12 signaling components for effector CTL differentiation. Contrary to established models of viral and bacterial infection, CD8(+) T cell-intrinsic IL-12 signaling was required for the generation of IFN-gamma-producing CTLs in response to T. gondii. Importantly, the development of the KLRG1(+) effector subpopulations, but not the memory precursor-containing KLRG1(-) effector subset, was critically reliant on IL-12. Furthermore, IL-12 signaling-dependent T-bet expression was also found to be important for differentiation of KLRG1(+) effectors. Our results underscore a vital role for IL-12 in not only the induction of IFN-gamma expression but also in the development of heterogeneous subpopulations of

effector CD8(+) T cells generated in response to the intracellular parasite T. gondii.

L27 ANSWER 3 OF 3 MEDLINE on STN
ACCESSION NUMBER: 2000047080 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10579715
TITLE: Conservation of a gliding motility and cell invasion machinery in Apicomplexan parasites.
AUTHOR: Kappe S; Bruderer T; Gantt S; Fujioka H; Nussenzweig V; Menard R
CORPORATE SOURCE: Department of Pathology, Kaplan Cancer Center, New York University School of Medicine, New York, New York 10016, USA.
CONTRACT NUMBER: AI-35827 (United States NIAID NIH HHS)
AI-43052 (United States NIAID NIH HHS)
SOURCE: The Journal of cell biology, (1999 Nov 29) Vol. 147, No. 5, pp. 937-44.
Journal code: 0375356. ISSN: 0021-9525. L-ISSN: 0021-9525.
Report No.: NLM-PMC2169348.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 14 Jan 2000
Last Updated on STN: 14 Jan 2000
Entered Medline: 30 Dec 1999
MEDLINE REFERENCE COUNT: 27 There are 27 cited references available in MEDLINE for this document.
ED Entered STN: 14 Jan 2000
Last Updated on STN: 14 Jan 2000
Entered Medline: 30 Dec 1999
AB Most Apicomplexan parasites, including the human pathogens Plasmodium, Toxoplasma, and Cryptosporidium, actively invade host cells and display gliding motility, both actions powered by parasite microfilaments. In Plasmodium sporozoites, thrombospondin-related anonymous protein (TRAP), a member of a group of Apicomplexan transmembrane proteins that have common adhesion domains, is necessary for gliding motility and infection of the vertebrate host. Here, we provide genetic evidence that TRAP is directly involved in a capping process that drives both sporozoite gliding and cell invasion. We also demonstrate that TRAP-related proteins in other Apicomplexa fulfill the same function and that their cytoplasmic tails interact with homologous partners in the respective parasite. Therefore, a mechanism of surface redistribution of TRAP-related proteins driving gliding locomotion and cell invasion is conserved among Apicomplexan parasites.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIX, JAPIO, PASCAL, DISSABS' ENTERED AT 17:08:37 ON 10 DEC 2010)
L28 833 S "DUBREMETZ J"?/AU
L29 613 S "BOUT D"?/AU
L30 1065 S "LEBRUN M"?/AU
L31 95 S "SOETE M"?/AU
L32 21 S "CEREDE O"?/AU
L33 5 S L28 AND L29 AND L30 AND L31 AND L32
L34 162 S L28 AND (L29-L32)
L35 42 S L29 AND (L30-L32)

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L36          21 S L30 AND (L31-L32)
L37           9 S L31 AND L32
L38          66 S (L28-L32 OR L34-L36) AND L2
L39           7 S (L28-L32 OR L34-L36) AND L5
L40          34 S (L28-L32 OR L34-L36) AND L9
L41          67 S L33 OR L37-L40
L42          22 DUP REM L41 (45 DUPLICATES REMOVED)

L42  ANSWER 1 OF 22     MEDLINE on STN                  DUPLICATE 1
ACCESSION NUMBER:    2010733657     MEDLINE  Full-text
DOCUMENT NUMBER:     PubMed ID: 20385082
TITLE:               Mic1-3 Knockout Toxoplasma
                     gondii is a good candidate for a vaccine
                     against T. gondii-induced abortion
                     in sheep.
AUTHOR:              Mevelec Marie-Noelle; Ducournau Celine; Bassuny Ismael
                     Alaa; Olivier Michel; Seche Edouard; Lebrun
                     Maryse; Bout Daniel; Dimier-Poisson
                     Isabelle
CORPORATE SOURCE:    Universite Francois Rabelais, INRA, UMR 0483
                     Universite-INRA d'Immunologie Parasitaire, Vaccinologie
                     et Biotherapie Anti-infectieuse, IFR136 Agents
                     Transmissibles et Infectiologie, UFR de Pharmacie, 31
                     avenue Monge, 37200 Tours, France..
                     mevelec@univ-tours.fr
SOURCE:              Veterinary research, (2010 Jul-Aug) Vol. 41, No. 4, pp.
                     49.  Electronic Publication: 2010-04-13.
                     Journal code: 9309551. ISSN: 0928-4249. L-ISSN:
                     0928-4249.
PUB. COUNTRY:        France
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         201009
ENTRY DATE:          Entered STN: 11 Aug 2010
                     Last Updated on STN: 16 Sep 2010
                     Entered Medline: 14 Sep 2010
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AB This study assessed the effectiveness of a mutant strain of Toxoplasma gondii (RH strain) lacking the mic1 and mic3 genes (Mic1-3KO) against Toxoplasma abortion in sheep. Ewes were inoculated subcutaneously with 10(5) Mic1-3KO tachyzoites in three independent experiments. Following vaccination, Mic1-3KO induced a mild febrile response and serum IgG antibodies, which persisted throughout the experiments. Tissue cysts formed in the sheep, but were not, under our experimental conditions, infectious when given orally. Ewes were mated two months after vaccination and were orally challenged with the PRU strain of T. gondii at mid-gestation (400 oocysts in Experiments 1 and 2; 100 oocysts in Experiment 3). Challenge of vaccinated pregnant ewes resulted in a slight febrile response, whereas unvaccinated ewes developed a more severe, characteristic febrile response of longer duration. After challenge, all unvaccinated ewes aborted whereas 62%, 91% and 64% (Experiments 1, 2 and 3 respectively) of the lambs from vaccinated ewes were viable, with no clinical signs of infection. Mic1-3KO was as effective as S48, the strain used as a live vaccine for sheep (Toxovax). A dose of 10(5) Mic1-3KO tachyzoites was sufficient to induce protection (versus a dose of 2x10(6)). Both subcutaneous and intraperitoneal injections were effective. Moreover, preliminary results showed the potential of Mic1-3KO to reduce the development of tissue cysts in lambs born to vaccinated ewes. This study demonstrates that Mic1 -3KO is a potent vaccine candidate. Copyright (c) INRA, EDP Sciences, 2010.

L42 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2010:991989 HCAPLUS Full-text
TITLE: Mic1-3 knockout Toxoplasma gondii is a good candidate for a vaccine against T. gondii-induced abortion in sheep
AUTHOR(S): Mevelec, Marie-Noelle; Ducournau, Celine; Ismael, Alaa Bassuny; Olivier, Michel; Seche, Edouard; Lebrun, Maryse; Bout, Daniel; Dimier-Poisson, Isabelle
CORPORATE SOURCE: Universite Francois Rabelais, INRA, IFR136 Agents Transmissibles et Infectiologie, UFR de Pharmacie, UMR 0483 Universite-INRA d'Immunologie Parasitaire, Vaccinologie et Biotherapie Anti-infectieuse, Tours, 37200, Fr.
SOURCE: Veterinary Research (2010), 41(4), 41:49/1-41:49/12
CODEN: VEREEM; ISSN: 0928-4249
PUBLISHER: EDP Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study assessed the effectiveness of a mutant strain of Toxoplasma gondii (RH strain) lacking the mic1 and mic3 genes (Mic1-3KO) against Toxoplasma abortion in sheep. Ewes were inoculated s.c. with 105 Mic1-3KO tachyzoites in three independent expts. Following vaccination, Mic1-3KO induced a mild febrile response and serum IgG antibodies, which persisted throughout the expts. Tissue cysts formed in the sheep, but were not, under our exptl. conditions, infectious when given orally. Ewes were mated two months after vaccination and were orally challenged with the PRU strain of T. gondii at mid-gestation (400 oocysts in Expts. 1 and 2; 100 oocysts in Experiment 3). Challenge of vaccinated pregnant ewes resulted in a slight febrile response, whereas unvaccinated ewes developed a more severe, characteristic febrile response of longer duration. After challenge, all unvaccinated ewes aborted whereas 62%, 91% and 64% (Expts. 1, 2 and 3 resp.) of the lambs from vaccinated ewes were viable, with no clin. signs of infection. Mic1-3KO was as effective as S48, the strain used as a live vaccine for sheep (Toxovax). A dose of 105 Mic1-3KO tachyzoites was sufficient to induce protection (vs. a dose of 2 + 106). Both s.c. and i.p. injections were effective. Moreover, preliminary results showed the potential of Mic1-3KO to reduce the development of tissue cysts in lambs born to vaccinated ewes. This study demonstrates that Mic1 -3KO is a potent vaccine candidate.
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 3 OF 22 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2010:450801 BIOSIS Full-text
DOCUMENT NUMBER: PREV201000450801
TITLE: Mic1-3 Knockout Toxoplasma gondii is a good candidate for a vaccine against T. gondii-induced abortion in sheep.
AUTHOR(S): Mevelec, Marie-Noelle [Reprint Author]; Ducournau, Celine; Ismael, Alaa Bassuny; Olivier, Michel; Seche, Edouard; Lebrun, Maryse; Bout, Daniel ; Dimier-Poisson, Isabelle
CORPORATE SOURCE: Univ Tours, INRA,UFR Pharm, Univ INRA Immunol Parasitaire Vaccinol and Biothera, UMR 0483,Agents Transmissibles and Infectiol IFR136, 31 Ave Monge,

F-37200 Tours, France
mevelec@univ-tours.fr
SOURCE: Veterinary Research (Les Ulis), (JUL-AUG 2010) Vol. 41, No. 4, pp. Article No.: 49.
ISSN: 0928-4249.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Aug 2010
Last Updated on STN: 4 Aug 2010

AB This study assessed the effectiveness of a mutant strain of Toxoplasma gondii (RH strain) lacking the mic1 and mic3 genes (Mic1-3KO) against Toxoplasma abortion in sheep. Ewes were inoculated subcutaneously with 10(5) Mic1-3KO tachyzoites in three independent experiments. Following vaccination, Mic1-3KO induced a mild febrile response and serum IgG antibodies, which persisted throughout the experiments. Tissue cysts formed in the sheep, but were not, under our experimental conditions, infectious when given orally. Ewes were mated two months after vaccination and were orally challenged with the PRU strain of T. gondii at mid-gestation (400 oocysts in Experiments 1 and 2; 100 oocysts in Experiment 3). Challenge of vaccinated pregnant ewes resulted in a slight febrile response, whereas unvaccinated ewes developed a more severe, characteristic febrile response of longer duration. After challenge, all unvaccinated ewes aborted whereas 62%, 91% and 64% (Experiments 1, 2 and 3 respectively) of the lambs from vaccinated ewes were viable, with no clinical signs of infection. Mic1-3KO was as effective as S48, the strain used as a live vaccine for sheep (Toxovax(R)). A dose of 10(5) Mic1-3KO tachyzoites was sufficient to induce protection (versus a dose of 2 x 10(6)). Both subcutaneous and intraperitoneal injections were effective. Moreover, preliminary results showed the potential of Mic1-3KO to reduce the development of tissue cysts in lambs born to vaccinated ewes. This study demonstrates that Mic1 -3KO is a potent vaccine candidate.

L42 ANSWER 4 OF 22 PASCAL COPYRIGHT 2010 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2010-0423197 PASCAL Full-text

TITLE (IN ENGLISH): Mic1-3 Knockout Toxoplasma gondii is a good candidate for a vaccine against T. gondii-induced abortion in sheep
AUTHOR: MEVELEC Marie-Noelle; DUCOURNAU Celine; BASSUNY ISMAEL Alaa; OLIVIER Michel; SECHE Edouard; LEBRUN Maryse; BOUT Daniel; DIMIER-POISSON Isabelle
CORPORATE SOURCE: Universite Francois Rabelais, INRA, UMR 0483 Universite-INRA d'Immunologie Parasitaire, Vaccinologie et Biotherapie Anti-infectieuse, IFR136 Agents Transmissibles et Infectiologie, UFR de Pharmacie, 31 avenue Monge, 37200 Tours, France; INRA, UR1282, Infectiologie Animale et Sante Publique, 37380 Nouzilly, France; VitamFero, UFR de Pharmacie, 31, avenue Monge, 37200 Tours, France; Universite de Montpellier 2, CNRS, UMR 5539 Universite-CNRS, 34090 Montpellier, France
SOURCE: Veterinary research : (Print), (2010), 41(4), 2010021.1-2010021.12, 40 refs.
ISSN: 0928-4249
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: France
LANGUAGE: English
AVAILABILITY: INIST-14119, 354000170573330080
AN 2010-0423197 PASCAL Full-text
CP Copyright .COPYRGT. 2010 INIST-CNRS. All rights reserved.
AB This study assessed the effectiveness of a mutant strain of Toxoplasma gondii (RH strain) lacking the mic1 and mic3 genes (Mic1-3KO) against Toxoplasma abortion in sheep. Ewes were inoculated subcutaneously with 10.sup.5 Mic1-3KO tachyzoites in three independent experiments. Following vaccination, Mic1-3KO induced a mild febrile response and serum IgG antibodies, which persisted throughout the experiments. Tissue cysts formed in the sheep, but were not, under our experimental conditions, infectious when given orally. Ewes were mated two months after vaccination and were orally challenged with the PRU strain of T. gondii at mid-gestation (400 oocysts in Experiments 1 and 2; 100 oocysts in Experiment 3). Challenge of vaccinated pregnant ewes resulted in a slight febrile response, whereas unvaccinated ewes developed a more severe, characteristic febrile response of longer duration. After challenge, all unvaccinated ewes aborted whereas 62%, 91 % and 64% (Experiments 1, 2 and 3 respectively) of the lambs from vaccinated ewes were viable, with no clinical signs of infection. Mic1-3KO was as effective as S48, the strain used as a live vaccine for sheep (Toxovax.sup.®). A dose of 10.sup.5 Mic1-3KO tachyzoites was sufficient to induce protection (versus a dose of 2 x 10.sup.6). Both subcutaneous and intraperitoneal injections were effective. Moreover, preliminary results showed the potential of Mic1-3KO to reduce the development of tissue cysts in lambs born to vaccinated ewes. This study demonstrates that Mic1-3KO is a potent vaccine candidate.

L42 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2009:511099 HCAPLUS Full-text
DOCUMENT NUMBER: 151:569377
TITLE: Further analysis of protection induced by the MIC3 DNA vaccine against T. gondii: CD4 and CD8 T cells are the major effectors of the MIC3 DNA vaccine-induced protection, both Lectin-like and EGF-like domains of MIC3 conferred protection
AUTHOR(S): Ismael, Alaa Bassuny; Hedhli, Dorsaf; Carede, Odile; Lebrun, Maryse; Dimier-Poisson, Isabelle; Mevelec, Marie-Noelle
CORPORATE SOURCE: INRA, UMR 0483 Universite-INRA d'Immunologie Parasitaire, Vaccinologie et Biotherapies anti-infectieuses, IFR 136 Agents transmissibles et Infectiologie, UFR des Sciences Pharmaceutiques, Universite Francois Rabelais, Tours, 37200, Fr.
SOURCE: Vaccine (2009), 27(22), 2959-2966
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The present study was conducted mainly to evaluate the contribution of the cellular and the humoral responses in protection conferred by the MIC3 DNA vaccine (pMIC3i) that was proved as a potent vaccine against toxoplasmosis. We performed the adoptive transfer of CD4+ and CD8+ T lymphocytes from pMIC3i immunized mice to naive ones and the role of humoral immunity was evaluated by in vitro invasion assays. We also constructed plasmids encoding the EGF-like domains and the Lectin-like domain of MIC3, to define which domains of MIC3 are involved in the protection. Furthermore, the adjuvant effect of the GM-CSF-expressing vector

(granulocyte-macrophage colony-stimulating factor) required the precise temporal and spatial codelivery of GM-CSF with antigen, thus, we constructed a bicistronic plasmid expressing MIC3 and GM-CSF. In conclusion, the protection induced by pMIC3i was mainly mediated by CD4+ and CD8+ T lymphocytes and both EGF and Lectin domains of MIC3 conferred protection. Furthermore, the codelivery of GM-CSF by a bicistronic plasmid appeared to be a most effective way for enhancing the adjuvant properties of GM-CSF. OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2009:1032571 HCAPLUS Full-text
DOCUMENT NUMBER: 152:498999
TITLE: Mic1-3KO tachyzoite a live attenuated vaccine candidate against toxoplasmosis derived from a type I strain shows features of type II strain
AUTHOR(S): Moire, Nathalie; Dion, Sarah; Lebrun, Maryse; Dubremetz, Jean-Francois; Dimier-Poisson, Isabell
CORPORATE SOURCE: INRA UMR 483 Universite-INRA d'Immunologie Parasitaire et Vaccinologie, Biotherapie anti-infectieuse, IFR agents transmissibles et infectiologie, UFR de Pharmacie, Universite Francois Rabelais de Tours, Tours, 37200, Fr.
SOURCE: Experimental Parasitology (2009), 123(2), 111-117 CODEN: EXPAAA; ISSN: 0014-4894
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vaccination with live attenuated parasites has been shown to induce high level of protection against Toxoplasma gondii . In this study we compared the Mic1-3KO tachyzoite (a live attenuated strain) with the parental wild type (WT) tachyzoite in terms of virulence in mice in vivo, dissemination in mouse tissues and persistence in mouse brain. Survival of mice infected with the Mic1-3KO parasites correlated with reduced parasite burden in mouse tissues compared to the parental strain. Like the WT parasite, Mic1-3KO is able to form tissue cysts in vivo which are not, in our exptl. conditions, infectious when given by oral route. Infection with the attenuated tachyzoite induced lower levels of cytokine and chemokine than with the parental strain. These data demonstrate that the deleted strain derived from a type I strain behaves like type II strain in outbred mice in terms of virulence, dissemination in mouse tissue and persistence in brain.
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L42 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2008:782785 HCAPLUS Full-text
DOCUMENT NUMBER: 149:99093
TITLE: Molecular signals in the trafficking of Toxoplasma gondii protein MIC3 to the micronemes
AUTHOR(S): El Hajj, Hiba; Papoin, Julien; Cerede, Odile; Garcia-Reguet, Nathalie; Soete, Martine; Dubremetz, Jean-Francois; Lebrun, Maryse
CORPORATE SOURCE: UMR 5235 CNRS, Universite de Montpellier 2, Montpellier, 34090, Fr.

SOURCE: Eukaryotic Cell (2008), 7(6), 1019-1028
CODEN: ECUEA2; ISSN: 1535-9786
URL: http://ec.asm.org/cgi/reprint/7/6/1019
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
AB The protozoan parasite Toxoplasma gondii is equipped with a sophisticated secretory apparatus, including three distinct exocytic organelles, named micronemes, rhoptries, and dense granules. The authors have dissected the requirements for targeting the microneme protein MIC3, a key component of T. gondii infection. They have shown that MIC3 is processed in a post-Golgi compartment and that the MIC3 propeptide and epidermal growth factor (EGF) modules contain microneme-targeting information. The minimal requirement for microneme delivery is defined by the propeptide plus any one of the three EGF domains. The authors have demonstrated that the cleavage of the propeptide, the dimerization of MIC3, and the chitin binding-like sequence, which are crucial for host cell binding and virulence, are dispensable for proper targeting. Finally, they have shown that part of MIC3 is withheld in the secretory pathway in a cell cycle-dependent manner.
OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2006:1203715 HCAPLUS Full-text
DOCUMENT NUMBER: 146:161103
TITLE: Mic1-3 knockout of Toxoplasma gondii is a successful vaccine against chronic and congenital toxoplasmosis in mice
AUTHOR(S): Ismael, Alaa Bassuny; Dimier-Poisson, Isabelle; Lebrun, Maryse; Dubremetz, Jean-Francois; Bout, Daniel; Mevelec, Marie-Noelle
CORPORATE SOURCE: Institut National de la Recherche Agronomique, Unite Mixte de Recherche, Universite-INRA d'Immunologie Parasitaire et Vaccinologie, Unite de Formation et de Recherche des Sciences Pharmaceutiques, Institut Federatif de Recherche, Agents Transmissibles et Infectiologie, Universite Francois-Rabelais de Tours, Tours, Fr.
SOURCE: Journal of Infectious Diseases (2006), 194(8), 1176-1183
CODEN: JIDIAQ; ISSN: 0022-1899
PUBLISHER: University of Chicago Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We evaluated a new vaccine, Mic1-3KO, against both chronic and congenital toxoplasmosis in mice. Mic1-3KO is a mutant strain of Toxoplasma gondii RH that lacks the mic1 and mic3 genes. OF1 mice were vaccinated with Mic1-3KO tachyzoites and challenged orally with T. gondii (strain 76K). Immune responses and protection against chronic infection (cyst load in brain tissue) and congenital infection (maternofetal transmission, survival, body weight, and chronic infection in pups) were evaluated. Mic1-3KO induced a strong humoral and cellular T helper (Th) 1 response and conferred highly significant protection against chronic infection (>96% reduction in cysts in brain tissue). Fewer infected fetuses were observed in vaccinated dams that were infected during pregnancy than in nonvaccinated infected dams (4.6% vs. 33.3%). All pups born to vaccinated infected dams survived and had the same weight as those born to nonvaccinated uninfected dams. Furthermore, they had significantly fewer cysts in brain tissue (>91%) than pups from nonvaccinated

infected dams. During pregnancy, protection against congenital disease was associated with a cellular Th1 response regulated by interleukin-10. One month after delivery, vaccinated infected dams had >96% fewer cysts in their brain tissue than nonvaccinated infected dams. Mic1-3KO is an effective vaccine against chronic and congenital toxoplasmosis. OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS
RECORD (6 CITINGS)
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2005:610763 HCAPLUS Full-text
DOCUMENT NUMBER: 143:114041
TITLE: Vaccine stocks of the Apicomplexan family Sarcocystidae
INVENTOR(S): Dubremetz, Jean Francois; Bout, Daniel; Lebrun, Maryse
PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique INRA, Fr.; Centre National de la Recherche Scientifique CNRS; Universite Francois Rabelais
SOURCE: Fr. Demande, 33 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2864966	A1	20050715	FR 2004-260	20040113
FR 2864966	B1	20060505		
AU 2005207647	A1	20050811	AU 2005-207647	20050113
CA 2552392	A1	20050811	CA 2005-2552392	20050113
WO 2005072754	A1	20050811	WO 2005-FR74	20050113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1703914	A1	20060927	EP 2005-717409	20050113
EP 1703914	B1	20080416		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
BR 2005006838	A	20070612	BR 2005-6838	20050113
JP 2007524409	T	20070830	JP 2006-548351	20050113
AT 392209	T	20080515	AT 2005-717409	20050113
PT 1703914	E	20080724	PT 2005-717409	20050113
ES 2306114	T3	20081101	ES 2005-717409	20050113
NZ 548250	A	20100930	NZ 2005-548250	20050113
ZA 2006005535	A	20080326	ZA 2006-5535	20060705
IN 2006DN04585	A	20070824	IN 2006-DN4585	20060808
US 20090053266	A1	20090226	US 2008-585721	20080808

PRIORITY APPLN. INFO.: FR 2004-260 A 20040113

WO 2005-FR74 W 20050113

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention relates to attenuated mutant stocks of Apicomplexans of the family Sarcocystidae, in which adhesins MIC1 and MIC3 were inactivated, and with their vaccine use.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 2005:133320 HCAPLUS Full-text

DOCUMENT NUMBER: 142:460002

TITLE: Synergistic role of micronemal proteins in Toxoplasma gondii virulence

AUTHOR(S): Cerede, Odile; Dubremetz, Jean Francois; Soete, Martine; Deslee, Didier; Vial, Henri; Bout, Daniel; Lebrun, Maryse

CORPORATE SOURCE: Faculte des Sciences Pharmaceutiques et Biologiques, UMR Universite-INRA d'Immunologie Parasitaires, Tours, 37200, Fr.

SOURCE: Journal of Experimental Medicine (2005), 201(3), 453-463
CODEN: JEMEAV; ISSN: 0022-1007

PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Apicomplexan parasites invade cells by a unique mechanism involving discharge of secretory vesicles called micronemes. Microneme proteins (MICs) include transmembrane and soluble proteins expressing different adhesive domains. Although the transmembrane protein TRAP and its homologues are thought to bridge cell surface receptors and the parasite submembranous motor, little is known about the function of other MICs. We have addressed the role of MIC1 and MIC3, 2 soluble adhesins of T. gondii , in invasion and virulence. Single deletion of the MIC1 gene decreased invasion in fibroblasts, whereas MIC3 deletion had no effect either alone or in the mic1KO context. Individual disruption of MIC1 or MIC3 genes slightly reduced virulence in the mouse, whereas doubly depleted parasites were severely impaired in virulence and conferred protection against subsequent challenge. Single substitution of 2 critical amino acids in the chitin binding-like (CBL) domain of MIC3 abolished MIC3 binding to cells and generated the attenuated virulence phenotype. Our findings identify the CBL domain of MIC3 as a key player in toxoplasmosis and reveal the synergistic role of MICs in virulence, supporting the idea that parasites have evolved multiple ligand-receptor interactions to ensure invasion of different cells types during the course of infection. OS.CITING REF COUNT: 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 2003:873399 HCAPLUS Full-text

DOCUMENT NUMBER: 139:394609

TITLE: The MIC3 gene of Toxoplasma gondii is a novel potent vaccine candidate against toxoplasmosis

AUTHOR(S): Ismael, Alaa Bassuny; Sekkai, Dalila; Collin, Christine; Bout, Daniel; Mevelec, Marie-noelle
CORPORATE SOURCE: UFR des Sciences Pharmaceutiques, IFR Imagerie et Exploration Fonctionnelles, UMR Universite-INRA d'Immunologie Parasitaire et Vaccinologie, Tours, 37200, Fr.
SOURCE: Infection and Immunity (2003), 71(11), 6222-6228 CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Infection with the intracellular protozoan parasite Toxoplasma gondii causes serious public health problems and is of great economic importance worldwide. The micronemal protein MIC3, which is a potent adhesin of T. gondii, could be a significant candidate vaccine against toxoplasmosis. In this study, all CBA/J mice i.m. vaccinated with a plasmid encoding the immature form of the MIC3 protein (pMIC3i) produced specific anti-MIC3 IgG antibodies, and their sera displayed high antibody titers. This response was increased by the coadministration of a plasmid encoding the granulocyte-macrophage colony-stimulating factor (pGM-CSF). Similarly, a specific and significant cellular immune response was obtained in mice immunized with pMIC3i, and this response was markedly enhanced by pGM-CSF coadministration. The cellular immune response was associated with the production of gamma interferon IFN-γ and interleukin-2 (IL-2), indicating that this was a Th1-type response. This was confirmed by the production of large amts. of IgG2a. Mice immunized with pMIC3i displayed significant protection against an oral challenge with T. gondii 76K cysts, exhibiting fewer brain cysts than did the control mice. Coadministration of pGM-CSF enhanced this protection. In conclusion, this study describes the design of a potent DNA vaccine encoding the novel T. gondii target antigen, MIC3 protein, that elicits a strong specific immune response as well as providing effective protection against T. gondii infection. In the attempt to achieve complete protection against toxoplasmosis, MIC3 is a good candidate vaccine which could be combined with other relevant and previously described candidates, such as SAG1 and GRA4.

OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 9
ACCESSION NUMBER: 2002:489099 HCAPLUS Full-text
DOCUMENT NUMBER: 137:213376
TITLE: The Toxoplasma gondii protein MIC3 requires pro-peptide cleavage and dimerization to function as adhesin
AUTHOR(S): Cerede, Odile; Dubremetz, Jean Francois; Bout, Daniel; Lebrun, Maryse
CORPORATE SOURCE: UMR Universite-INRA d'Immunologie Parasitaire. Faculte des Sciences Pharmaceutiques et Biologiques, Tours, F-37200, Fr.
SOURCE: EMBO Journal (2002), 21(11), 2526-2536 CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Attachment and invasion of host cells by apicomplexan parasites involve the exocytosis of the micronemal proteins (MICs). Most MICs are adhesins, which show homol. with adhesive domains from higher eukaryote proteins and undergo proteolytic

processing of unknown biol. significance during their transport to micronemes. In Toxoplasma gondii, the micronemal homodimeric protein MIC3 is a potent adhesin that displays features shared by most Apicomplexa MICs. We have developed an original MIC3-binding assay by transfection of mammalian cells with complete or truncated MIC3 gene sequences and demonstrated that the receptor binding site of MIC3 is located in the N-terminal chitin-binding-like domain, which remains poorly accessible until the adjacent pro-peptide has been cleaved, and that binding requires dimerization. We have localized the dimerization domain in the C-terminal end of the protein and shown that it is able to convert MIC8, a monomeric micronemal protein sharing the MIC3 lectin-like domain, into a dimer able to interact with host cell receptors. These findings shed new light on mol. mechanisms that control functional maturation of MICs. OS.CITING REF COUNT: 32
THERE ARE 32 CAPLUS RECORDS THAT CITE THIS
RECORD (32 CITINGS)
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L42 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 2001:661278 HCAPLUS Full-text
DOCUMENT NUMBER: 135:209891
TITLE: Use of Toxoplasma gondii
MIC3 protein and/or one of its derivatives
as immunogenic agent or as vaccination antigen
INVENTOR(S): Lebrun, Maryse; Bout, Daniel
PATENT ASSIGNEE(S): Virsol, Fr.
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064243	A2	20010907	WO 2001-FR514	20010222
WO 2001064243	A3	20020214		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2805466	A1	20010831	FR 2000-2390	20000225
PRIORITY APPLN. INFO.:			FR 2000-2390 A	20000225

AB The invention concerns the use of Toxoplasma gondii MIC3 protein and/or one of its derivs. as immunogenic agent or as vaccination antigen.
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L42 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 2001:105973 HCAPLUS Full-text
DOCUMENT NUMBER: 134:263300

TITLE: Identification and characterization of an escorter for two secretory adhesins in Toxoplasma gondii
AUTHOR(S): Reiss, Matthias; Viebig, Nicola; Brecht, Susan; Fourmaux, Marie-Noelle; Soete, Martine; Di Cristina, Manlio; Dubremetz, Jean Francois; Soldati, Dominique
CORPORATE SOURCE: Center for Molecular Biology, University of Heidelberg, Heidelberg, D-63120, Germany
SOURCE: Journal of Cell Biology (2001), 152(3), 563-578 CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The intracellular protozoan parasite Toxoplasma gondii shares with other members of the Apicomplexa a common set of apical structures involved in host cell invasion. Micronemes are apical secretory organelles releasing their contents upon contact with host cells. We have identified a transmembrane micronemal protein MIC6, which functions as an escorter for the accurate targeting of two soluble proteins MIC1 and MIC4 to the micronemes. Disruption of MIC1, MIC4, and MIC6 genes allowed us to precisely dissect their contribution in sorting processes. We have mapped domains on these proteins that determine complex formation and targeting to the organelle. MIC6 carries a sorting signal(s) in its cytoplasmic tail whereas its association with MIC1 involves a lumenal EGF-like domain. MIC4 binds directly to MIC1 and behaves as a passive cargo mol. In contrast, MIC1 is linked to a quality control system and is absolutely required for the complex to leave the early compartments of the secretory pathway. MIC1 and MIC4 bind to host cells, and the existence of such a complex provides a plausible mechanism explaining how soluble adhesins act. We hypothesize that during invasion, MIC6 along with adhesins establishes a bridge between the host cell and the parasite. OS.CITING REF COUNT: 89 THERE ARE 89 CAPLUS RECORDS THAT CITE THIS RECORD (89 CITINGS)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 15 OF 22 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2002128949 EMBASE Full-text
TITLE: Identification and characterization of an escorter for two secretory adhesins in Toxoplasma gondii.
AUTHOR: Reiss, Matthias; Viebig, Nicola; Brecht, Susan; Fourmaux, Marie-Noelle; Soete, Martine; Di Cristina, Manlio; Dubremetz, Jean Francois; Soldati, Dominique (correspondence)
CORPORATE SOURCE: ZMBH, P.O. Box 106249, Heidelberg D-69120, Germany. soldati@zmbh.uni-heidelberg.de
SOURCE: Journal of Cell Biology, (30 Apr 2001) Vol. 153, No. 3, pp. 563-578. Refs: 39 ISSN: 0021-9525 CODEN: JCLBA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 2 May 2002 Last Updated on STN: 2 May 2002

AB The intracellular protozoan parasite Toxoplasma gondii shares with other members of the Apicomplexa a common set of apical structures involved in host cell invasion. Micronemes are apical secretory organelles releasing their contents upon contact with host cells. We have identified a transmembrane micronemal protein MIC6, which functions as an escorter for the accurate targeting of two soluble proteins MIC1 and MIC4 to the micronemes. Disruption of MIC1, MIC4, and MIC6 genes allowed us to precisely dissect their contribution in sorting processes. We have mapped domains on these proteins that determine complex formation and targeting to the organelle. MIC6 carries a sorting signal(s) in its cytoplasmic tail whereas its association with MIC1 involves a lumenal EGF-like domain. MIC4 binds directly to MIC1 and behaves as a passive cargo molecule. In contrast, MIC1 is linked to a quality control system and is absolutely required for the complex to leave the early compartments of the secretory pathway. MIC1 and MIC4 bind to host cells, and the existence of such a complex provides a plausible mechanism explaining how soluble adhesins act. We hypothesize that during invasion, MIC6 along with adhesins establishes a bridge between the host cell and the parasite.

L42 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 12
ACCESSION NUMBER: 2001:707960 HCAPLUS Full-text
DOCUMENT NUMBER: 136:2600
TITLE: Identification and molecular characterization of an adhesin (TgMIC3) of Toxoplasma gondii microneme
AUTHOR(S): Pradines, O.; Cerede, T.; Garcia-Regje, N.; Conseil, V.; Bout, D.; Dubremetz, J. F.; Lebrun, M.
CORPORATE SOURCE: Fac. de Pharmacie de Tours, UMR Univ. INRA d'Immunologie Parasitaire, Tours, F37200, Fr.
SOURCE: Annales Pharmaceutiques Francaises (2001), 59(5), 293-296
CODEN: APFRAD; ISSN: 0003-4509
PUBLISHER: Masson Editeur
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Protozoa of the phylum Apicomplexa are of high medical and veterinary importance, causing diseases such as malaria, toxoplasmosis, and cryptosporidiosis. Invasive stages of apicomplexans possess organelles named micronemes, which are involved in the invasion process. A protein in micronemes of T. gondii, TgMIC3, which possess adhesive properties to host cell surface, was recently characterized. Immunofluorescence anal. of T. gondii tachyzoite invasion showed that TgMIC3 is exocytosed and re-localized on the surface of the parasite during invasion. By being able to bind both the putative host cells and the parasites, TgMIC3 could be involved in invasion by acting as a bridge between the parasite and the host cell. Gene sequence anal. of TgMIC3 has revealed 5 partially overlapping EGF-like domains and a lectin binding-like domain, which can be involved in protein-protein or protein-carbohydrate interactions resp. TgMIC3 is a homodimer synthesized with a N-terminal propeptide that is cleaved during trafficking to the organelle, presumably in the trans-Golgi network. The processing involves a serine protease and is required for correct binding function of TgMIC3. The exact role of this propeptide remains unexplained. It may be involved in the targetting of the protein to the micronemes by masking the region involved in interaction with membranes to avoid binding of the protein in the trafficking pathway.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 2001:182475 HCAPLUS Full-text

DOCUMENT NUMBER: 135:16449
TITLE: Targeting of soluble proteins to the rhoptries and micronemes in Toxoplasma gondii
AUTHOR(S): Striepen, B.; Soldati, D.; Garcia-Reguet, N.; Dubremetz, J.-F.; Roos, D. S.
CORPORATE SOURCE: Department of Biology, University of Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE: Molecular and Biochemical Parasitology (2001), 113(1), 45-53
CODEN: MBIPDP; ISSN: 0166-6851
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rhoptry and microneme organelles of the protozoan parasite Toxoplasma gondii are closely associated with host cell adhesion/invasion and establishment of the intracellular parasitophorous vacuole. In order to study the targeting of proteins to these specialized secretory organelles, the authors have engineered green fluorescent protein (GFP) fusions to the rhoptry protein ROP1 and the microneme protein MIC3. Both chimeras are correctly targeted to the appropriate organelles, permitting deletion anal. to map protein subdomains critical for targeting. The propeptide and a central 146 amino acid region of ROP1 are sufficient to target GFP to the rhoptries. More extensive deletions result in a loss of rhoptry targeting; the GFP reporter is diverted into the parasitophorous vacuole via dense granules. Certain MIC3 deletion mutants were also secreted into the parasitophorous vacuole via dense granules, supporting the view that this route constitutes the default pathway in T. gondii, and that specific signals are required for sorting to rhoptries and micronemes. Deletions within the cysteine-rich central region of MIC3 cause this protein to be arrested at various locations within the secretory pathway, presumably due to improper folding. Although correctly targeted to the appropriate organelles in living parasites, ROP1-GFP and MIC3-GFP fusion proteins were not secreted during invasion. GFP fusion proteins were readily secreted from dense granules, however, suggesting that protein secretion from rhoptries and micronemes might involve more than a simple release of organellar contents.
OS.CITING REF COUNT: 49 THERE ARE 49 CAPLUS RECORDS THAT CITE THIS RECORD (50 CITINGS)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 2000:617805 HCAPLUS Full-text
DOCUMENT NUMBER: 134:38425
TITLE: The microneme protein MIC3 of Toxoplasma gondii is a secretory adhesin that binds to both the surface of the host cells and the surface of the parasite
AUTHOR(S): Garcia-Reguet, Nathalie; Lebrun, Maryse; Fourmaux, Marie-Noelle; Mercereau-Puijalon, Odile; Mann, Tara; Beckers, Cornelius J. M.; Samyn, Bart; Van Beeumen, Jozef; Bout, Daniel; Dubremetz, Jean-Francois
CORPORATE SOURCE: Biologie moleculaire et Pathogenese des Sporozoaires, Institut de Biologie de Lille, Institut Pasteur de Lille, Lille, 59021, Fr.
SOURCE: Cellular Microbiology (2000), 2(4), 353-364
CODEN: CEMIF5; ISSN: 1462-5814
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Assay of the adhesion of cultured cells on Toxoplasma gondii tachyzoite

protein Western blots identified a major adhesive protein, that migrated at 90 kDa in non-reducing gels. This band comigrated with the previously described microneme protein MIC3. Cellular binding on Western blots was abolished by MIC3-specific monoclonal and polyclonal antibodies. The MIC3 protein affinity purified from tachyzoite lysates bound to the surface of putative host cells. In addition, T. gondii tachyzoites also bound to immobilized MIC3. Immunofluorescence anal. of T. gondii tachyzoite invasion showed that MIC3 was exocytosed and relocalized to the surface of the parasite during invasion. The cDNA encoding MIC3 and the corresponding gene have been cloned, allowing the determination of the complete coding sequence. The MIC3 sequence has been confirmed by affinity purification of the native protein and N-terminal sequencing. The deduced protein sequence contains five partially overlapping EGF-like domains and a chitin binding-like domain, which can be involved in protein-protein or protein-carbohydrate interactions. Taken together, these results suggest that MIC3 is a new microneme adhesin of T. gondii.

OS.CITING REF COUNT: 64 THERE ARE 64 CAPLUS RECORDS THAT CITE THIS RECORD (64 CITINGS)

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 15

ACCESSION NUMBER: 1998:649621 HCAPLUS Full-text

DOCUMENT NUMBER: 130:13056

TITLE: Murine dendritic cells pulsed in vitro with Toxoplasma gondii antigens induce protective immunity in vivo

AUTHOR(S): Bourguin, Isabelle; Moser, Muriel; Buzoni-Gatel, Dominique; Tielemans, Francoise; Bout, Daniel; Urbain, Jacques; Leo, Oberdan

CORPORATE SOURCE: CJF INSERM 93-09 d'Immunologie des Maladies Infectieuses, Equipe Associee INRA d'Immunologie Parasitaire, U.F.R. des Sciences Pharmaceutiques, Tours, 37200, Fr.

SOURCE: Infection and Immunity (1998), 66(10), 4867-4874 CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The activation of a predominant T-helper-cell subset plays a critical role in disease resolution In the case of Toxoplasma gondii, the available evidence indicates that CD4+ protective cells belong to the Th1 subset. The aim of this study was to determine whether T. gondii antigens (in T. gondii sonicate [TSo]) presented by splenic dendritic cells (DC) were able to induce a specific immune response in vivo and to protect CBA/J mice orally challenged with T. gondii cysts. CBA/J mice immunized with TSo-pulsed DC exhibited significantly fewer cysts in their brains after oral infection with T. gondii 76K than control mice did. Protected mice developed a strong humoral response in vivo, with especially high levels of anti-TSo IgG2a antibodies in serum. T. gondii antigens such as SAG1 (surface protein), SAG2 (surface protein), MIC1 (microneme protein), ROP2 through ROP4 (rhoptry proteins), and MIC2 (microneme protein) were recognized predominantly. Furthermore, DC loaded with TSo, which synthesized high levels of interleukin-12 (IL-12), triggered a strong cellular response in vivo, as assessed by the proliferation of lymph node cells in response to TSo restimulation in vitro. Cellular proliferation was associated with gamma interferon and IL-2 production Taken together, these results indicate that immunization of CBA/J mice with TSo-pulsed DC can induce both humoral and Th1-like cellular immune responses and affords partial resistance against the establishment of chronic toxoplasmosis.

OS.CITING REF COUNT: 36 THERE ARE 36 CAPLUS RECORDS THAT CITE THIS RECORD (36 CITINGS)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 20 OF 22 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 1997179497 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9027753
TITLE: The MIC1 microneme protein of Toxoplasma gondii contains a duplicated receptor-like domain and binds to host cell surface.
AUTHOR: Fourmaux M N; Achbarou A; Mercereau-Puijalon O; Biderre C; Briche I; Loyens A; Odberg-Ferragut C; Camus D; Dubremetz J F
CORPORATE SOURCE: INSERM U42, Villeneuve d' Ascq, France.
SOURCE: Molecular and biochemical parasitology, (1996 Dec 20) Vol. 83, No. 2, pp. 201-10.
Journal code: 8006324. ISSN: 0166-6851. L-ISSN: 0166-6851.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U42213; GENBANK-Z71786
ENTRY MONTH: 199706
ENTRY DATE: Entered STN: 12 Jun 1997
Last Updated on STN: 12 Jun 1997
Entered Medline: 3 Jun 1997

AB The cDNA encoding the Toxoplasma gondii microneme protein MIC1 and the corresponding gene have been cloned and sequenced. The MIC1 gene contains three introns. The cDNA encodes a 456 amino acid (aa) sequence, with a typical signal sequence and no other trans-membrane domain. The protein contains a tandemly duplicated domain with conservation of cysteines and presents distant homology with the Plasmodium sp. microneme protein TRAP-SSP2. The MIC1 protein from tachyzoite lysates and a PMAL recombinant expressing the N-terminal duplicated domain of the protein bound to the surface of putative host cells, suggesting a possible involvement of MIC1 in host cell binding/recognition.

L42 ANSWER 21 OF 22 PASCAL COPYRIGHT 2010 INIST-CNRS. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 1992-0505913 PASCAL Full-text
TITLE (IN ENGLISH): Characterization of microneme and dense granule proteins of Toxoplasma gondii
TITLE (IN FRENCH): Caracterisation de proteines des micronemes et des granules denses chez Toxoplasma gondii
AUTHOR: ACHBAROU Abderrahim; DUBREMETZ Jean-Francois {dir.}
SOURCE: (1992-02), 204 refs.
172 p.
Dissertation Information: Universite de Lille 1.
FRA, Th. doct. : Parasitol., 92LIL10034
DOCUMENT TYPE: Dissertation
BIBLIOGRAPHIC LEVEL: Monographic
COUNTRY: France
LANGUAGE: French
SUMMARY LANGUAGE: French; English
AVAILABILITY: INIST-t 81940, T92LIL10034

AN 1992-0505913 PASCAL Full-text
ABFR Notre travail a porte sur la caracterisation du contenu de deux types d'organites du complexe apical de Toxoplasma gondii (Protozoaire, Apicomplexa): les micronemes et les granules denses. Nous avons utilise, au cours de cette etude, des sondes immunologiques: soit des anticorps monoclonaux, soit des anticorps polyclonaux, produits contre des protetines recombinantes. Une proteine de 80 kDa a ete identifiee au niveau du conoide des tachyzoites. Dans les micronemes, trois proteines distinctes ont ete identifiees: Mic 1 (60 kDa), Mic 2(120 kDa) et Mic 3(90kDa). Lors de l'etude des interactions des tachyzoites de Toxoplasma gondii avec des cellules Veroi, MRC5 ou TG180, nous avons mis evidence une affinite de Mic 1 pour la surface des cellules hotes. Mic 2 subit une maturation lors de l'invasion et donne naissance a des proteines de 116 et 110 kDa. Nous avons egalement etudie les caracteristiques biochimiques de quatre proteines des granules denses de Toxoplasma gondii (Gra 1: 27 kDa; Gra 2: 28 kDa; Gra 3: 30 kDa et Gra 4: 40-41 kDa) ainsi que leur distribution lors des differentes etapes de l'interaction entre des tachyzoites et les cellules hotes. L'exocytose de ces organites a ete observee des la fin de l'invasion et toutes les proteines identifiees (Gra a a 4) ont ete localisees dans l'espace vacuolaire. Gra 3 s'associe en plus a la membrane de la vacuole parasitophore. Les resultats preliminaires que nous avons obtenus suggerent que les micronemes, chez Toxoplasma gondii, pourraient contribuer aux processus de reconnaissance et d'attachement du parasite a la cellule hote lors de l'invasion, comme cela a ete suggere pour d'autres Apicomplexa. L'environnement vacuolaire declencherait l'exocytose des granules denses. Le contenu de ces organites contribuerait a la maturation de la vacuole parasitophore. La mise en evidence d'une proteine parasitaire (Gra 3) sur la membrane de la vacuole parasitophore evoque pour cette proteine un role dans les echanges avec la cellule hote

L42 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 17
ACCESSION NUMBER: 1991:531570 HCAPLUS Full-text
DOCUMENT NUMBER: 115:131570
ORIGINAL REFERENCE NO.: 115:22441a,22444a
TITLE: Characterization of microneme proteins of Toxoplasma gondii
AUTHOR(S): Achbarou, Abderrahim; Mercereau-Puijalon, Odile; Autheman, Jean Michel; Fortier, Bernard; Camus, Daniel; Dubremetz, Jean Francois
CORPORATE SOURCE: Unite 42, INSERM, Villeneuve d'Ascq, 59651, Fr.
SOURCE: Molecular and Biochemical Parasitology (1991), 47(2), 223-33
CODEN: MBIPDP; ISSN: 0166-6851
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three microneme proteins of T. gondii have been characterized using 3 monoclonal antibodies and a recombinant protein specific antiserum. In all cases, apical labeling of tachyzoites and bradyzoites was observed by indirect immunofluorescence assay. Immunogold localization on ultrathin sections of bradyzoites or tachyzoites showed a specific labeling of micronemes. The following proteins were characterized using 2-dimensional gel electrophoresis and Western immunoblotting: Mic 1 (60 kDa, pI 6.5), Mic 2 (120 kDa, pI 5), and Mic 3 (90 kDa, pI 6.75). The 90-kDa protein (Mic 3) is a heterodimer of two 38-kDa polypeptides (pI 6.7 and 6.75, resp.) linked by disulfide bridges. Metabolic labeling and immunopptn. assays showed that at least one of the 38-kDa polypeptides was processed from a 40-kDa precursor. No processing was observed during the biosynthesis of th 120- and 60-kDa polypeptides. OS.CITING REF COUNT: 44
THERE ARE 44 CAPLUS RECORDS THAT CITE THIS RECORD (44 CITINGS)
FILE 'HOME' ENTERED AT 17:12:33 ON 10 DEC 2010

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=> d his ful

     FILE 'HCAPLUS' ENTERED AT 16:50:07 ON 10 DEC 2010
L1          1096 SEA ABB=ON  PLU=ON  MIC1 OR MICI OR MIC3 OR MIC(W)(1 OR I OR 3)
L2            66 SEA ABB=ON  PLU=ON  L1 AND (TOXOPLASMA OR (TOXOPLASM? OR
                 T)(W)GONDII)
                 E ADHESINS+ALL/CT
L3          3677 SEA ABB=ON  PLU=ON  ADHESINS+OLD,PFT/CT
                 E TOXOPLASMA GONDII+ALL/CT
L4          4606 SEA ABB=ON  PLU=ON  "TOXOPLASMA GONDII"+PFT/CT
L5            31 SEA ABB=ON  PLU=ON  L3 AND L4
                 E MUTAGENESIS+ALL/CT
L6         24987 SEA ABB=ON  PLU=ON  MUTAGENESIS+PFT/CT
                 E E8+ALL
L7        211382 SEA ABB=ON  PLU=ON  MUTATION+OLD,PFT/CT
L8             3 SEA ABB=ON  PLU=ON  L5 AND (L6 OR L7)
L9            49 SEA ABB=ON  PLU=ON  L1 AND ADHESI###
L10           12 SEA ABB=ON  PLU=ON  L9 AND (DELET? OR ALTER? OR MUTANT OR
                 MUTAGEN? OR MUTAT? OR POLYMORPH? OR POLY MORPH?)
L11            9 SEA ABB=ON  PLU=ON  L2 AND (DELET? OR ALTER? OR MUTANT OR
                 MUTAGEN? OR MUTAT? OR POLYMORPH? OR POLY MORPH?)
L12           16 SEA ABB=ON  PLU=ON  L8 OR L10 OR L11
L13           10 SEA ABB=ON  PLU=ON  L12 AND (PY<2005 OR AY<2005 OR PRY<2005)
                 D QUE L8
                 D QUE L10
                 D QUE L11
                 D L13 1-10

     FILE 'MEDLINE, EMBASE, WPIX, JAPIO, PASCAL, DISSABS' ENTERED AT
     17:00:52 ON 10 DEC 2010
L14            0 SEA ABB=ON  PLU=ON  L8
L15           25 SEA ABB=ON  PLU=ON  L10
L16           25 SEA ABB=ON  PLU=ON  L11
L17           35 SEA ABB=ON  PLU=ON  L15 OR L16
L18           19 SEA ABB=ON  PLU=ON  L17 AND (PY<2005 OR AY<2005 OR
                 PRY<2005)
L19           15 DUP REM L18 (4 DUPLICATES REMOVED)
                 D L19 1-15 IBIB ABS

          FILE 'MEDLINE' ENTERED AT 17:05:42 ON 10 DEC 2010
                 E CELL ADHESION MOLECULES+ALL/CT
L20        83305 SEA ABB=ON  PLU=ON  ("CELL ADHESION MOLECULES"/CT OR
                 D12.776.395.550.200./CT OR D12.776.543.550.200./CT OR
                 D23.50.301.350./CT)
                 E TOXOPLASMA GONDII+ALL/CT
                 E E2+ALL
L21         8491 SEA ABB=ON  PLU=ON  (TOXOPLASMA/CT OR B1.43.75.189.250.750.
                 800./CT)
L22           66 SEA ABB=ON  PLU=ON  L20 AND L21
                 E CHROMOSOME DELETION+ALL/CT
                 E E22+ALL
L23       491657 SEA ABB=ON  PLU=ON  (MUTATION/CT OR G5.365.590./CT)
                 E E20+ALL
L24        18280 SEA ABB=ON  PLU=ON  ("CHROMOSOME DELETION"/CT OR C23.550.21
                 0.175./CT OR G5.355.600.800.180./CT OR G5.365.590.175.177./
                 CT OR G5.365.590.29.530.175./CT OR G5.365.590.762.180./CT)
                 E E37+ALL
L25        29400 SEA ABB=ON  PLU=ON  ("GENE DELETION"/CT OR G5.355.600.800.3
                 20./CT OR G5.365.590.762.320./CT)
                 E MUTAGENESIS+ALL
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                E MUTAGENESIS+ALL/CT
L26       169532 SEA ABB=ON  PLU=ON  (MUTAGENESIS/CT OR G5.355.600./CT)
L27            3 SEA ABB=ON  PLU=ON  L22 AND ((L23 OR L24 OR L25 OR L26))
                D QUE
                D L27 1-3

     FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIX, JAPIO, PASCAL, DISSABS'
     ENTERED AT 17:08:37 ON 10 DEC 2010
L28          833 SEA ABB=ON  PLU=ON  "DUBREMETZ J"?/AU
L29          613 SEA ABB=ON  PLU=ON  "BOUT D"?/AU
L30         1065 SEA ABB=ON  PLU=ON  "LEBRUN M"?/AU
L31           95 SEA ABB=ON  PLU=ON  "SOETE M"?/AU
L32           21 SEA ABB=ON  PLU=ON  "CEREDE O"?/AU
L33            5 SEA ABB=ON  PLU=ON  L28 AND L29 AND L30 AND L31 AND L32
L34          162 SEA ABB=ON  PLU=ON  L28 AND ((L29 OR L30 OR L31 OR L32))
L35           42 SEA ABB=ON  PLU=ON  L29 AND ((L30 OR L31 OR L32))
L36           21 SEA ABB=ON  PLU=ON  L30 AND ((L31 OR L32))
L37            9 SEA ABB=ON  PLU=ON  L31 AND L32
L38           66 SEA ABB=ON  PLU=ON  ((L28 OR L29 OR L30 OR L31 OR L32) OR
                  (L34 OR L35 OR L36)) AND L2
L39            7 SEA ABB=ON  PLU=ON  ((L28 OR L29 OR L30 OR L31 OR L32) OR
                  (L34 OR L35 OR L36)) AND L5
L40           34 SEA ABB=ON  PLU=ON  ((L28 OR L29 OR L30 OR L31 OR L32) OR
                  (L34 OR L35 OR L36)) AND L9
L41           67 SEA ABB=ON  PLU=ON  L33 OR (L37 OR L38 OR L39 OR L40)
L42           22 DUP REM L41 (45 DUPLICATES REMOVED)
                D L42 1-22 IBIB ABS

     FILE 'HOME' ENTERED AT 17:12:33 ON 10 DEC 2010


     FILE HCAPLUS

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     FILE COVERS 1907 - 10 Dec 2010  VOL 153 ISS 25
     FILE LAST UPDATED: 9 Dec 2010  (20101209/ED)
     REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Aug 2010
     USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Aug 2010

     HCAplus now includes complete International Patent Classification (IPC
     reclassification data for the fourth quarter of 2010.

     CAS Information Use Policies apply and are available at:

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     substance identification.

     FILE MEDLINE
      FILE LAST UPDATED: 9 Dec 2010 (20101209/UP).  FILE COVERS 1946 TO DAT
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MEDLINE and LMEDLINE have been updated with the 2010 Medical Subject
Headings (MeSH) vocabulary and tree numbers from the U.S.  National L
of Medicine (NLM).  Additional information is available at

http://www.nlm.nih.gov/pubs/techbull/nd09/nd09_medline_data_changes_2

The Medline file has been reloaded effective January 24, 2010.  See H
RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE EMBASE
 FILE COVERAGE: EMBASE-originated material 1947 to 10 Dec 2010 (201012
                Unique MEDLINE content 1948 to present

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

 For further assistance, please contact your local helpdesk.

FILE WPIX
FILE LAST UPDATED:          8 DEC 2010   <20101208/UP>
MOST RECENT UPDATE:          201079      <201079/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
>>> Now containing more than 1.6 million chemical structures in DCR <<

>>> IPC, ECLA, US National Classifications and Japanese F-Terms
    and FI-Terms have been updated with reclassifications to
    end of July 2010.
    No update date (UP) has been created for the reclassified
    documents, but they can be identified by
    specific update codes (see HELP CLA for details) <<<

>>> FOR THE LATEST DERWENT WORLD PATENTS INDEX (DWPI)
    STN USER DOCUMENTATION, PLEASE VISIT:
    http://www.stn-international.com/stn_dwpi.html <<<

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <

>>> For changes in DWPI see HELP CHANGE - last updated April 6, 2010 <

FILE JAPIO
FILE LAST UPDATED:           3 DEC 2010       <20101203/UP>
MOST RECENT PUBLICATION DATE: 26 AUG 2010       <20100826/PD>
>>> GRAPHIC IMAGES AVAILABLE <<<

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION (SLART) IS AVAILABLE
    IN THE BASIC INDEX (/BI) FIELD <<<

FILE PASCAL
FILE LAST UPDATED: 6 DEC 2010       <20101206/UP>
FILE COVERS 1977 TO DATE.
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